Canada
Statistics
The Quantity of Manufacturing
in Canada
1923-29

CANADA—DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
INDUSTRIAL STATISTICS BRANCH

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Published by Authority of the Hon. H. H. Stevens, M.P.,
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PREFACE

The present publication embodies the results of an investigation intended to satisfy a long-felt need for a measure of the trend of the physical volume, that is, the quantity, of manufacturing production in Canada in recent years. While the value of manufacturing production has been made available through the Annual Census of Manufactures for each of the years from 1917 to 1929, the great fluctuations in prices during this period have obscured what is, from many points of view, the most important subject of investigation in this field—the quantity of manufacturing production and the rate at which that quantity tends to increase from year to year. For it is, after all, the quantity rather than the value of production that satisfies human needs. Again, it is of the highest importance that the quantity of production shall increase at a more rapid rate than the increase of the population, if the individual citizen is to be better off in the future than in the present. The tables of this report show very considerable progress in total quantity production and in quantity production per wage-earner in the period under review.

The study covers the production of the seven years from 1923 to 1929, when the manufacturing industries of the Dominion were generally expanding. The middle year of this period, 1926, was chosen as affording a normal and representative base for the index. Next, the different industries were weighted according to the value added by manufacture in those industries in 1926, as indicating their relative importance. Then the quantity of each product of each industry was secured and their relative importance calculated for the base year and for the other years covered. In certain cases where no quantities were available, the quantity of raw materials used or the number of wage-earners employed was used as a substitute. While this necessarily involved a certain amount of estimate, it is felt that the results for the different manufacturing industries and for manufactures as a whole attain a high degree of accuracy.

The period covered by this analysis, it is true, was one of rapidly increasing quantities as well as values of production. The usefulness of the index will be even more clearly apparent when the method is applied to the manufacturing production of 1930 and 1931. Then in all probability it will be found that the anticipated declines in the

money value of production in most industries, as the result of the general fall of prices, will not mean a corresponding reduction in the quantity of manufactured products available for domestic consumption or for export. Thus the new index will do away with many misconceptions and contribute materially toward a better understanding of the position of the manufacturing industries in the national economy.

Special characteristics of the Central Electric Stations industry made it impossible to deal with it in the main body of the report, but a short Appendix shows the remarkable increase in the units (kilowatt hours) generated during the period under review.

This analysis of the volume of the manufacturing production of the Dominion and the preparation of the index was carried out by Mr. A. Cohen, B.Com., Acting Chief of the Census of Manufactures.

R. H. COATS,
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
OTTAWA, March 1, 1932.

TABLE OF CONTENTS

GENERAL TABLES

TEXT TABLES

CHARTS

THE QUANTITY OF MANUFACTURING PRODUCTION IN CANADA, 1923-1929

Importance of the Index

The ever-increasing use of factory products for satisfying the needs of mankind is the most significant feature of modern economic life. The inclusiveness of factory production at the present time is indeed extraordinary. It is not so long ago since Canadian manufacturing was carried on in the household for the immediate use of the family. With the coming of the industrial revolution production rapidly passed from the household to the factory where power-using machinery could be utilized to the best advantage. Nor has this process of transition slackened in any way. Each year sees an increasing number of articles which were formerly produced in the home become products of large and modern factories. In all industrial countries, hand-spinning and weaving to-day are lost arts. The foundry has displaced the blacksmith, and the shoe factory the local cobbler with his modest outfit. Even the farmer's butter churn is being displaced by the creamery and the country housewife depends increasingly on the village store for supplies which heretofore were the exclusive product of the home. The increasing variety of foods prepared in factories illustrates the tendency to increased reliance upon the factory for the satisfaction of our wants. To-day it is possible to obtain over the counter almost any kind of food prepared in factories and ready for immediate use. Fresh vegetables are about the only staple articles which reach the consumer without, in some way, being first fashioned at the factory. Not only the food we eat, but also the clothing we wear, the household conveniences we use, our instruments of transportation and production are all factory products. The increasing volume of factory production, therefore, measures approximately the total flow of the economic goods upon which our modern life so vitally depends.

The statistics of manufactures compiled by the Dominion Bureau of Statistics each year afford a variety of measures of the growth of factory production. Number of wage-earners, capital invested, value of production and value added by manufacture, all show to some extent the direction and volume of growth. The question is, which one of these measures is most representative. The value of production, for example, being reported in dollars, does not disclose unequivocally the amount of change, since the values shown are the result of two variables, the value of money and the quantity of goods produced. Since

real income is ultimately measured in goods and services, the growth of the volume of manufactures, as distinguished from the value, therefore, becomes a matter of great importance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents. If the value of money did not change or were subject only to slight changes, it would still be possible to measure the relative change in industrial output, even though the data were reported in monetary terms. But the value of money never stays at the same level for any considerable length of time and at times is even subject to violent fluctuations. Thus the violent price changes accompanying the depressions of 1921 and 1930 have made the monetary unit an uncertain measure of economic progress. Changes in the value of manufactured products tend to obscure the facts regarding alterations in the physical flow of goods from producer to consumer. It is the purpose of the present volume to ascertain the growth of manufactures, based on the volume of goods produced. Statistics now compiled fail to give a complete picture of the growth of manufactures as the following example shows:—

Growth of the Milling Industry, 1923-29

—	Unit	1923	1929	Percentage variation
Value of production	$	154,895,991	181,148,689	+16·9
Value added by manufacture	$	26,422,932	30,342,024	+14·8
Capital invested	$	60,556,587	67,773,534	+11·9
Wage-earners	No.	5,500	5,408	− 1·7
Wheat flour produced	Bbl.	19,075,814	19,756,422	+ 3·6
Index of the volume of production* (1926=100)		97·9	103·7	+ 5·9

*Index includes products other than wheat flour.

As may be seen, the value of production increased in these six years 16·9 p.c. while the volume increased only 5·9 p.c. The greater increase in the value than in the volume is accounted for largely by the higher price of flour, which rose from an average of $5.37 per barrel in 1923 to $5.80 in 1929. It may also be noted that in spite of an increase of 5·9 p.c. in the volume of production, there was a drop of 1·7 p.c. in the number of wage-earners employed. This, no doubt, is due to increased efficiency and improvements in the equipment employed. From the above example, it may readily be seen that an index of the physical volume of production becomes a very important supplement to the statistics already collected in analysing the trend and development of industry.

Difficulties in Constructing the Index

The difficulties encountered in constructing an index of the volume of production, make it, at its best, a somewhat imperfect instrument for measuring the growth of industry. In modern production there is a tendency toward the more elaborate fabrication of raw materials. In one sense this is an element in the growth of manufacture, but unfortunately, it is not subject to statistical measurement. Even if it were possible to obtain quantitative data for all products manufactured, the resulting index would still understate to some extent the change in manufacture, as no recognition can be given to the changes in the quality of the products made. In constructing an index for the shoe industry, for example, account is only taken of the number of shoes produced. No reckoning can be made of the change in their quality. A shoe made to-day may be of superior workmanship and require more labour for its production than was the case, say, five years ago, yet an increase of 50 p.c. in the number of shoes produced is considered as a 50 p.c. increase in its volume, irrespective of the change in quality. It is quite obvious that in order to construct a true index of production, account should be taken of the change in the quality as well as the quantity. It is therefore, essential to recognize at the outset that data showing the volume of products manufactured are more likely to understate than overstate the growth of manufactured output.

The paucity of quantitative data was another difficulty encountered in constructing the index. For the larger staple industries the data are quite complete and the resulting index is consequently very reliable. For some of the smaller industries and even some of the larger industries, however, the opposite is true. Even in cases where the quantitative data were available, the large number of articles produced and the wide fluctuations from year to year made the construction of the index a matter of extreme difficulty. Where the quantitative data of the articles produced were not available, the quantities of raw materials used formed the basis of the index. And in those industries where quantitative data were not available for either the products made or the raw materials used, the change in the number of wage-earners was taken as the change in the volume of production.

In some cases a third difficulty appeared—the difficulty of combining relatives that fluctuate widely from year to year, as the following example shows:—

—	Weight	Unit	1926	1927	Percentage variation
Phonographs.....	8	No.	100	40	− 60 x 8 = − 480
Radios.....	2	No.	10	70	+600 x 2 = +1200
Total for industry.	10	.....	.....	.....	+720÷10=72

The increase in the volume amounted to 72 p.c.; an increase of 60 radios and a decrease of 60 phonographs. If in this case it is found that the number of wage-earners increased only 10 p.c., it is therefore quite obvious that the large increase in volume is due to the error produced in combining relatives that fluctuate widely. In all such cases, therefore, adjustments were made to bring the index in agreement with the change in the number of wage-earners employed.

It is hardly necessary to urge that caution must be employed in comparing changes in the volume of production with changes in the number of wage-earners. Among different industries at the same time and in the same industry at different times, the number of wage-earners employed may be no criterion of the differences in the physical volume of production. In some industries machinery is used more extensively than in others. Labour counts for far more in the manufacture of shoes than in the production of cotton cloth. The introduction of new machinery and labour-saving devices in a given industry may radically alter the relation between wage-earners and the volume of the output. In the tobacco industry, for example, due to the substitution of machinery for hand labour, the number of wage-earners employed dropped from 7,319 in 1923 to 7,094 in 1928, a decrease of 3·1 p.c., while the volume of production rose from 81·3 to 120·7, an increase of 48·4 p.c. Nevertheless, it is reasonable to suppose that for broad groups of industries and for most industries for shorter periods of time, there is a high degree of correlation between the number of wage-earners employed and the physical volume of production. Even in industries where machinery is displacing hand labour, the volume of production must ultimately follow the changes in the number of wage-earners, for as soon as the change from hand labour to machinery is completed, increased volume can only be obtained through an increase in the labour force. In the average number of wage-earners reported annually to the Dominion Bureau of Statistics, we have, therefore, a possible basis for estimating the change in manufacturing output.

Records of the number of wage-earners may also be regarded as more likely to understate than overstate the changes in the volume of production. As stated previously, the tendency is toward increasing production per wage-earner through greater efficiency and increased use of machinery and labour-saving devices. Also in times of depression, many establishments follow the practice of keeping the wage-earners on the pay-roll on a part time basis rather than laying some of them off and employing the rest on full time, while in periods of increased industrial activity, the additional output required is secured through overtime work rather than an increase in the number of wage-earners. The net result of this is to confine fluctuations in the number of wage-earners within narrower limits than that of the physical volume of production. All things considered, however, the average number of wage-earners is materially influenced by the fluctuations in industrial activity.

Description of the Index

The data used in constructing the index are taken from the industrial statistics compiled by the Bureau. The index itself is modelled on the lines of the Harvard Census Index. The index is built up by a process of integration. First, the relatives of the products of each industry are combined to form industry indices; these industry indices are in turn combined to form group indices (component raw material or purpose classification, *see* Tables 1 and 2), and these group indices are then combined to form the index of manufacturing in general. The following short description of the index will convey a general idea of its nature.

The index is a weighted geometric mean of relatives with 1926 as the base.

The weights of the industries are computed in terms of percentages of the whole and are then multiplied by 10, the total weights equalling 1000.

Weights for industries and groups of industries are based on the value added by manufacture in 1926.

Weights for individual products within an industry are based on their value of production in 1926—figures for value added by manufacture not being available. Each product is weighted in accordance with its importance as measured by its value of production.

In order to secure a reliable measure of the change in the volume of production, it is necessary that the relatives of individual products as well as of each industry be weighted in accordance with the value of their contribution to the total result. The advantages of using figures for values added by manufacture as the basis of weighting are as follows:—

(a) Figures for values added provide the most satisfactory basis of weighting available since they represent the actual contribution of labour, capital and organizing ability to the production of commodities.

(b) These figures reflect to some extent the tendency toward the more elaborate fabrication of raw materials.

(c) Fluctuations in the value added are not as marked as those of gross value of production or of capital invested.

(d) There is a high degree of correlation between values added and number of wage-earners as well as between salaries and wages paid.

As mentioned above, geometric averages were employed in combining the relatives to form the index. This procedure offers two distinct advantages.

(a) The geometric average is less affected by extreme variations than the arithmetic average. It is therefore slightly lower than the arithmetic average.

(b) The base can be shifted with mathematical accuracy by a short method, a process which is impossible in the case of the arithmetic average.

Against these two advantages, the geometric mean has a disadvantage in that logarithms must be employed in its computation.

Construction of the Index

As mentioned above, the weight of all the products manufactured is taken as 1000, while the weights of each of the nine groups into which the manufacturing industries are classified are in proportion to their value added by manufacture, as the following table shows:—

Computation of the Weight of Each Group, 1926

Group	Value added by manufacture, 1926	Percentage of whole	Weight
	$		
Total, All Groups	1,403,711,306	100·0	1,000
Vegetable Products	244,004,302	17·4	174
Animal Products	122,920,658	8·8	88
Textiles and Textile Products	163,502,261	11·6	116
Wood and Paper	339,062,685	24·2	242
Iron and Steel	247,168,476	17·6	176
Non-ferrous Metals	92,888,719	6·6	66
Non-metallic Minerals	91,863,604	6·5	65
Chemicals and Allied Products	62,464,944	4·5	45
Miscellaneous Industries	39,835,657	2·8	28

The next step is to calculate the weights of the industries composing the groups. The table below illustrates the procedure followed.

Computation of the Weights for the Industries Composing the Vegetable Products Group, 1926

Industries	Value added by manufacture, 1926	Percentage of whole	Weight
	$		
Vegetable Products Group	244,004,302	17·40	174·0
Flour milling	25,675,291	1·83	18·3
Malt and malt mills	1,837,401	0·13	1·3
Rice mills	175,327	0·01	0·1
Bread and other bakery products	29,991,944	2·15	21·5
Biscuits, confectionery, cocoa and chocolate	27,075,786	1·93	19·3
Miscellaneous food industries	4,457,409	0·32	3·2
Starch, glucose, etc	1,789,857	0·13	1·3
Macaroni and vermicelli	600,137	0·04	0·4
Ice cream cones	305,861	0·02	0·2
Fruit and vegetable preparations	13,019,755	0·93	9·3
Coffee and spices	3,209,337	0·23	2·3
Sugar refining	15,422,180	1·10	11·0
Maple syrup and sugar	157,016	0·01	0·1
Syrups	110,196	0·01	0·1
Breweries	29,154,450	2·08	20·8
Distilleries	8,540,709	0·61	6·1
Wine and grape juice	1,135,349	0·08	0·8
Rubber	36,605,948	2·61	26·1
Tobacco	42,596,610	3·03	30·3
Linseed oil and oilcake	1,122,560	0·08	0·8
Miscellaneous vegetable products	1,021,179	0·07	0·7

After weights have been assigned to all the industries the weights of the products used in the construction of the index for each industry are next calculated. The flour-milling industry may be used to illustrate the method followed to determine the weights of the products composing the index. It should be mentioned here, that the weight of each product is in proportion to its gross value of production, since figures for value added by manufacture are not available for individual products.

Flour-milling Industry:—Computation of Weights for Each Product, 1926

Products	Unit	Quantity	Value	Weight
			$	
Wheat flour	bbl.	19,056,112	131,187,907	13·1
Chopped grain feed	ton	843,148	29,027,954	2·9
Shorts and middlings	"	371,999	10,185,325	1·0
Bran	"	279,429	6,745,584	0·7
Rolled oats	bbl. 180 lbs.	758,243	5,634,759	0·6
Total value of products included in index	.....	.....	182,781,529	18·3

On referring to Table 1, it is found that the flour milling industry has been assigned a weight of 18·3. This has to be distributed among the products in proportion to their value. The weight of wheat flour is determined by proportion as follows:—$131,187,907 : $182,781,529 : : x : 18·3.

$$\frac{131,187,907 \times 18·3}{182,781,529} = 13·1$$

The weights of the other products are determined in the same way. After the weights of groups, industries and products are determined, the index is then constructed as shown below:—

Computation of Industry Indices

Products	Unit	Weight	1926		1927		1928	
			Number	Index	Number	Index	Number	Index
Flour Milling Industry	.....	18·3	.....	100·0	.....	100·4	.....	107·3
Wheat flour	bbl.	13·1	19,056,112	100·0	18,787,312	98·6	20,389,542	107·0
Chopped grain feed	ton	2·9	843,148	100·0	924,225	109·6	876,128	103·9
Shorts and middlings	"	1·0	371,999	100·0	395,757	106·4	448,292	120·5
Bran	"	0·7	279,429	100·0	285,682	102·2	310,694	111·2
Rolled oats	bbl.*	0·6	758,243	100·0	648,635	85·5	798,086	105·3

*Barrels, 180 lbs.

Computation of Group Indices

Industries	Weight	1926	1927	1928
Chemicals and Allied Products	45·0	100·0	106·7	117·3
Acids, alkalies, salts and compressed gases	12·1	100·0	103·6	126·4
Coal tar products	0·9	100·0	125·1	148·6
Explosives, ammunition, fireworks, matches	3·8	100·0	107·7	113·5
Fertilizers	0·3	100·0	133·9	145·3
Inks, dyes and colours	1·3	100·0	113·3	118·8
Medicinal and pharmaceutical preparations	7·1	100·0	108·6	108·0
Miscellaneous chemical industries	4·6	100·0	103·3	110·8
Paints, pigments and varnishes	8·4	100·0	109·1	123·8
Soaps, washing compounds and toilet preparations	5·8	100·0	104·5	105·1
Wood distillates and extracts	0·7	100·0	108·6	112·7

Computation of Index of General Manufactures

Groups	Weight	1926	1927	1928
All Manufacturing Industries	1,000	100·0	106·5	116·1
Vegetable products	174	100·0	107·7	118·3
Animal Products	88	100·0	97·7	100·8
Textiles and Textile Products	116	100·0	107·4	114·9
Wood and Paper Products	242	100·0	107·7	118·4
Iron and Its Products	176	100·0	102·9	113·5
Non-ferrous Metals	66	100·0	115·4	128·4
Non-metallic Minerals	65	100·0	108·9	123·5
Chemicals and Allied Products	45	100·0	106·7	117·3
Miscellaneous Products	28	100·0	110·5	109·3

In constructing the index of the flour-milling industry for 1927, it is found that wheat flour and rolled oats dropped to 98·6 p.c. and 85·5 p.c. respectively as compared with the base year 1926, while chopped grain feed rose to 109·6 p.c., shorts and middlings 106·4 p.c., and bran 102·2 p.c. These relatives are then combined according to their weights by means of geometric averages, as follows:

Relative		Weight								
98·6	x	131	=	log	98·6	x 131	=	1·99388	x 131	= 261·19828
109·6	x	29	=	"	109·6	x 29	=	2·03981	x 29	= 59·15449
106·4	x	10	=	"	106·4	x 10	=	2·02694	x 10	= 20·26940
102·2	x	7	=	"	102·2	x 7	=	2·00945	x 7	= 14·06615
85·5	x	6	=	"	85·5	x 6	=	1·93197	x 6	= 11·59182
		183								366·28014

$$\frac{366 \cdot 28014}{183} = 2 \cdot 00153$$

On referring to the table of common logarithms, it is found that 2·00153 is the logarithm of 100·4, the figure which is taken as the index number of the flour milling industry for 1927.

In the same way, the indices of all the industries composing a group are calculated and then combined as illustrated above to find the index for the group. The group indices are in turn combined to get the index of manufactures in general. Tables 1 and 2 show the indices of each industry for the years 1923 to 1929 grouped according to the component raw material and purpose classifications.

Representativeness of the Index

Since it was not possible to obtain quantitative data for all the products made in each industry, it was therefore necessary to confine the index to a few broad series of products. Also, in some cases, the index was based on the raw materials used or on the number of wage-earners employed. The reader is therefore urged to be cautious in making generalizations as to the growth of the volume of production. For many broad groups of industries the index is quite reliable, while for others it may be only relatively correct. In each case, the reader should refer to Table 4, which shows the representativeness of the index for each industry as well as the basis on which it was constructed, whether the index is based on the raw materials used, the products made or the number of wage-earners employed. The table below summarizes the representativeness of the groups into which the industries are classified.

Representativeness of the Index

Group	Weight	Value of products included in index, 1926	Total value of production, 1926	Percentage of total value of products included in index
		$	$	
Vegetable Products	174	622,428,703	668,890,914	93·1
Animal Products	88	410,360,192	444,686,105	92·3
Textiles and Textile Products	116	198,460,265	366,334,644	54·2
Wood and Paper Products	242	425,806,361	656,610,634	64·8
Iron and Its Products	176	375,546,401	567,950,501	66·1
Non-ferrous Metals	66	35,285,009	183,501,723	19·2
Non-metallic Minerals	65	132,680,111	174,156,923	76·2
Chemicals and Allied Products	45	75,375,633	122,589,526	61·5
Miscellaneous Industries	28	36,505,581	70,143,531	52·0
All Industries	1,000	2,312,448,256	3,254,864,501	71·1

From the above table, it may be seen that 71·1 p.c. of the value of the products made by Canadian manufacturers have been used in constructing the index. From the point of view of reliability, the vegetable products group takes first place with 93·1 p.c., followed by the animal products group with 92·3 p.c., non-metallic minerals 76·2 p.c., and so forth. In constructing the index of the non-ferrous metal group, only 19·2 p.c. of the value of the products were available. The reliability of the index is, however, far greater than this figure would indicate. In three industries of this group which produced about 54 p.c. of the total output, the raw materials consumed were used in constructing the index, while in two other industries the number of wage-earners employed formed the basis of the index. In some cases, the raw materials used may be just as representative as the quantities of articles manufactured in estimating the growth of an industry. The number of wage-earners employed, however, as has been shown above, has the tendency of underestimating the growth of manufactures. Taken all in all, the index for each broad group of industries shown in Tables 1 and 2 are quite reliable and may be used quite freely in making generalizations. In the case of some individual industries, however, the index must be used with caution; they should be used in conjunction with Table 4, which shows the reliability and basis of construction of the index for each industry.

THE GROWTH OF MANUFACTURES, 1923-29

The physical volume of production increased 50·2 p.c. between 1923 and 1929. When it is recalled that the population of Canada increased only 10·8 p.c. from 9,083,000 in 1923, to 10,068,000 in 1929, an increase of 50·2 p.c. in the volume of manufacturing production is indeed remarkable. Part of this advance was owing to an increase in the domestic demand due to an increased population and a rise in the standard of living, and part to the increased demand abroad for Canadian manufactured products, as the following table clearly shows:—

Export of Canadian Products for the Fiscal Years Ending March 31, 1924 and 1930

	1924	1930	Percentage increase or decrease
	$	$	
Raw materials	453,521,750	429,354,077	− 5·3
Partly manufactured goods	175,974,117	213,261,833	+21·2
Fully manufactured goods	415,855,189	477,642,392	+14·9
Total	1,045,351,056	1,120,258,302	+ 7·2

On referring to the table next below, it may be seen that with the exception of a slight recession in 1924, the expansion was continuous. As might be expected, not all groups expanded to the same extent. The non-ferrous metal group led with an increase of 90·3 p.c., while the animal products group recorded the lowest increase, viz. 17·2 p.c. The slight recession in volume experienced in 1924 was not general. Textiles, wood and paper, iron and its products and non-metallic mineral products were the only groups affected. The textile and wood and paper groups recovered in the following year, while in the case of iron and its products and non-metallic minerals, the recovery was not complete until 1926.

Although this report covers only seven years, yet the general trend of Canadian manufacturing production as a whole is clearly shown. With the passing of time, the index of the volume of production will become more and more valuable in analysing the trend of production, both as regards the volume as well as the substitution of one product for another.

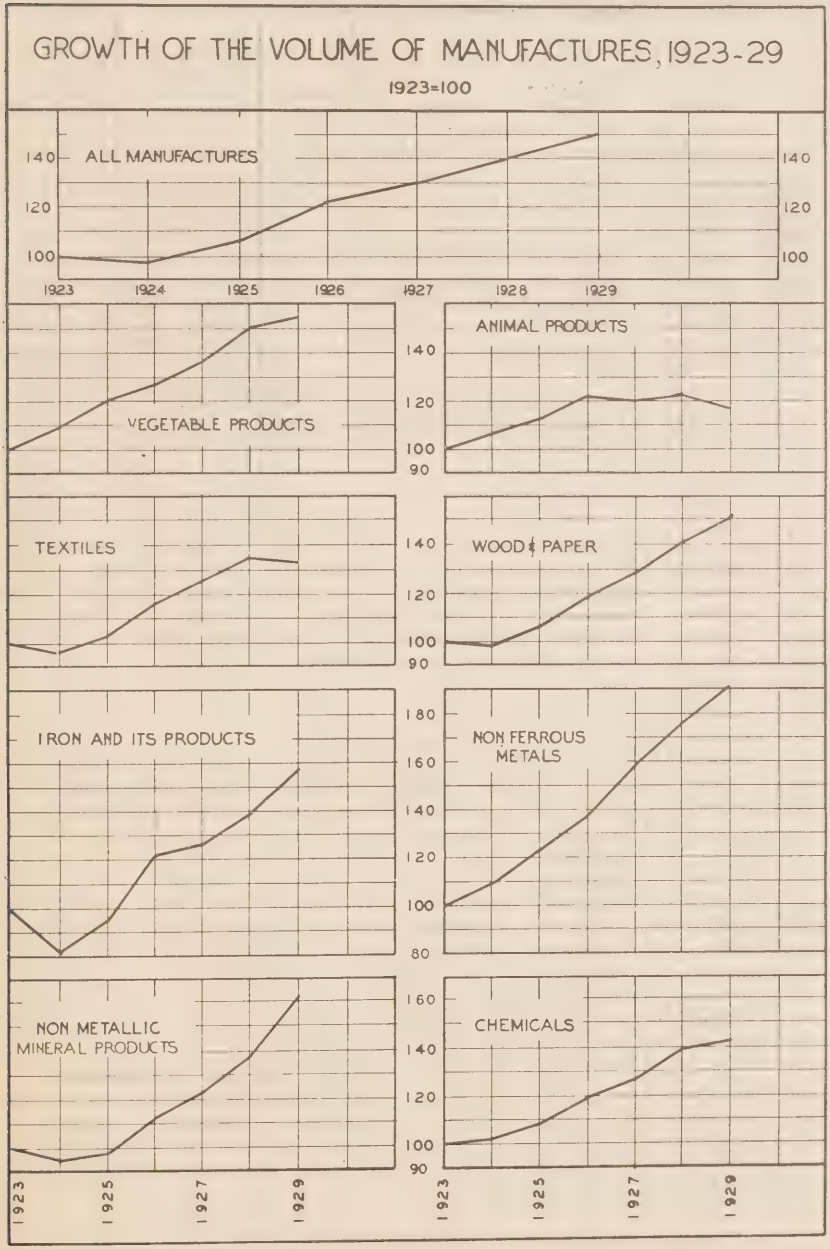
Growth of the Volume of Production

1923=100

Groups	Weight*	1929	1928	1927	1926	1925	1924	1923
All Manufactured Products	1,000	150·2	141·9	130·2	122·2	107·5	98·2	100·0
Vegetable products	174	155·3	151·1	137·5	127·7	120·8	109·2	100·0
Animal products	88	117·2	123·8	120·0	122·9	113·0	107·1	100·0
Textiles and textile products	116	133·8	135·3	126·5	117·8	103·4	96·6	100·0
Wood and paper products	242	152·9	142·0	129·1	119·9	106·0	98·1	100·0
Iron and its products	176	157·8	138·1	125·2	121·7	95·1	80·5	100·0
Non-ferrous metals	66	190·3	176·1	158·3	137·2	122·8	108·5	100·0
Non-metallic minerals	65	163·1	138·9	122·5	112·5	98·3	95·8	100·0
Chemicals and allied products	45	143·3	139·6	127·0	119·0	109·5	102·3	100·0
Miscellaneous products	28	137·3	136·5	138·0	124·8	106·0	108·0	100·0

*Weights are based on value added by manufacture in 1926.

Vegetable Products. The most significant feature of the growth of the vegetable products group since 1923 is the great increase in the volume of alcoholic liquors, rubber goods and tobacco products, as compared with the moderate increases in the flour-milling and baking groups. All the major industries of the group experienced an increase in the volume of production in 1929 as compared with 1923, and only one large industry, viz., sugar-refining, had a decreased output since 1926. The increase in the volume of distilled liquors was the greatest of any large industry, the volume having increased by 455·3 p.c. since 1923. Fruit and vegetable preparations increased 121·4 p.c., rubber goods 89·1 p.c., beer and ale 61·9 p.c., and tobacco products 64·0 p.c. The increases in the volume of flour and bakery products, however, were not as substantial; the output of the bread and other bakery products industry advanced 24·6 p.c., while that of biscuits and confectionery increased 28·9 p.c., and of flour 5·9 p.c. The sugar-refining industry, although reporting an advance of 11·0 p.c. since 1923, nevertheless shows a drop of 18·2 p.c. in the volume of production since 1926. The table which follows gives the increase in the volume of production of all the industries of the vegetable products group since 1923 and 1926. The second column shows the increase since 1926 while the fourth column shows the increase since 1923.


GROWTH OF THE VOLUME OF MANUFACTURES, 1923-29
1923=100
ALL MANUFACTURES
140
120
100
1923
1924
1925
1926
1927
1928
1929
VEGETABLE PRODUCTS
ANIMAL PRODUCTS
140
120
100
90
TEXTILES
WOOD & PAPER
IRON AND ITS PRODUCTS
NON FERROUS METALS
180
160
140
120
100
80
NON METALLIC MINERAL PRODUCTS
CHEMICALS
160
140
120
100
90
1923
1925
1927
1929

Increase in the Volume of Production, Vegetable Products Group, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Vegetable Products Group	174·0	121·6	78·3	55·3
Flour milling industry	18·3	103·7	97·9	5·9
Malt and malt mills	1·3	157·8	64·2	145·8
Rice mills	0·1	98·3	94·1	4·5
Bread and other bakery products	21·5	106·7	85·6	24·6
Biscuits, confectionery, cocoa and chocolate	19·3	120·0	93·1	28·9
Miscellaneous food industries	3·2	123·3	79·6	54·9
Starch, glucose, etc	1·3	106·2	98·0	8·4
Macaroni and vermicelli	0·4	90·8	63·2	43·7
Ice cream cones	0·2	116·4	84·4	37·9
Fruit and vegetable preparations	9·3	128·4	58·0	121·4
Coffee, tea and spices	2·3	112·9	97·0	16·4
Sugar refining	11·0	81·8	73·7	11·0
Maple syrup and maple sugar	0·1	347·0	116·3	198·4
Syrups	0·1	97·4	124·0	−21·5
Breweries	20·8	123·2	76·1	61·9
Distilleries	6·1	277·1	49·9	455·3
Wine and grape juice	0·8	223·1	39·8	460·6
Rubber	26·1	128·6	68·0	89·1
Tobacco	30·3	133·3	81·3	64·0
Linseed oil and oilcake	0·8	107·4	79·3	35·4
Miscellaneous vegetable products	0·7	116·9	80·4	45·4

*1926 = 100.

Animal Products.—According to the table below, the output of the animal products group in 1929 was 17·2 p.c. greater than in 1923 and 4·6 p.c. lower than in 1926. The output of this group did not keep pace with that of other lines of production; indeed, this group reported the smallest increase of any. This was mainly due to a decline since 1926 in the output of three of the larger industries producing food products, viz. slaughtering and meat-packing, butter and cheese, and fish-curing and packing. These industries, despite decreased production since 1926, have nevertheless recorded slight increases for the seven-year period under review. The decline in the volume of production since 1926 was not general; the industries manufacturing wearing apparel recorded substantial increases. The decrease in the food group should not, however, be considered as changes in the domestic consumption of these articles, since a change in consumption is the result of three variables, i.e. home production, imports and exports. On referring to the export figures of animal products it is found that the reduced output of butter, cheese, meat, fish, etc., was due to the diminishing quantities of these articles exported and not to their decreased consumption in Canada. (On this point see also Canada Year Book 1931, p. 633.)

Increase in the Volume of Production, Animal Products Group, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Animal Products	88·0	95·4	81·4	17·2
Slaughtering and meat packing	19·9	97·2	91·3	6·5
Butter and cheese	20·0	94·8	86·7	9·3
Fish curing and packing	10·1	77·9	74·1	5·1
Condensed milk	2·8	111·2	92·2	20·6
Sausage and sausage casings	0·5	99·9	53·0	88·5
Boots and shoes, leather	15·7	103·1	89·4	15·3
Fur goods	4·8	106·2	49·5	114·5
Gloves and mittens, leather	1·1	133·3	93·9	42·0
Fur dressing and dyeing	1·8	140·2	45·2	210·2
Boot and shoe findings	0·5	94·8	97·2	— 2·5
Leather, tanned, etc	6·4	81·7	76·0	7·5
Harness, saddlery and miscellaneous leather goods	3·8	85·1	68·9	23·5
Animal hair goods	0·3	105·1	113·3	— 7·2
Animal oils and fats	0·2	87·8	111·5	—21·3
Human hair goods	0·1	61·9	85·7	—27·8

*1926 = 100.

Textiles and Textile Products.—The volume of production of this group increased 33·8 p.c. since 1923; a figure which is materially lower than that of manufacturing in general, which increased 50·2 p.c. Almost all the industries of this group manufactured a greater volume of products in 1929 than in 1923. The woollen cloth and corset industries were the only major industries to report a lower output. The rapid increase in the use of rayon in wearing apparel is one of the outstanding features of the changing fashions in dress during the past few years. This accounts for the unprecedented increase of 302·8 p.c. in the volume of production of the silk industry. The changing fashions in women's wear also affected the output of yet another industry, viz. the production of corsets, which declined steadily during the past few years. The change from cotton and wool to rayon fabrics did not, however, materially affect the output of cotton fabrics. The output of cotton yarn and cloth was increased by 22·6 p.c. since 1923, and that of woollen yarns by 18·4 p.c., while the output of woollen cloth decreased 12·4 p.c. since 1923. The clothing group of industries, also increased substantially their output. Men's furnishing goods increased 34·4 p.c. since 1923, hosiery, knit goods and fabric gloves 32·8 p.c., women's factory clothing 31·7 p.c., men's factory clothing 17·0 p.c., hats and caps 69·8 p.c., oiled and waterproof clothing 83·4 p.c., while corsets decreased 6·4 p.c. The other industries employing textiles as their basic raw materials and producing articles other than clothing and cloth, also made considerable progress in increasing their volume of production, as the following table shows:—

Increase in the Volume of Production, Textiles and Textile Products, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Textiles and Textile Products	116·0	113·6	84·9	33·8
Cotton yarn and cloth	22·9	98·2	80·1	22·6
Cotton thread	1·6	104·9	96·7	8·5
Batting and wadding	0·8	93·9	51·8	81·3
Cotton and wool waste	0·4	153·1	84·0	82·3
Cotton textiles, n.e.s.	0·4	119·4	17·1	†
Miscellaneous textiles, n.e.s.	0·4	97·2	170·0	†
Woollen cloth	4·9	93·6	106·9	—12·4
Woollen yarns	2·1	117·2	99·0	18·4
Carpets, mats and rugs	1·2	166·1	128·5	29·3
Woollen goods, n.e.s.	2·0	104·4	68·7	52·0
Hosiery, knit goods and fabric gloves	17·2	111·4	83·9	32·8
Clothing, women's factory	15·6	121·2	92·0	31·7
Clothing, men's factory	14·0	103·0	88·0	17·0
Furnishing goods, men's	7·2	119·9	89·2	34·4
Hats and caps	4·9	111·7	65·8	69·8
Silk goods	3·6	205·0	50·9	302·8
Corsets	1·3	103·6	110·7	— 6·4
Oiled and waterproof clothing	0·4	143·8	78·4	83·4
Bags, cotton and jute	1·3	102·4	86·6	18·2
Cordage, rope and twine	2·0	129·2	79·9	61·7
Awnings, tents and sails	0·6	135·3	109·3	23·8
Linen goods	0·1	83·4	63·1	32·2
Flax, dressed	0·1	78·3	84·0	— 6·8
Dyeing, cleaning and laundry work	11·0	139·8	95·8	45·9

*1926 = 100.

†These two industries should be considered together since an establishment may be classified under one heading one year and under the other heading the following year, depending on the materials used.

Wood and Paper Products.—This group ranks third in importance as regards the gross value of production and total value of exports and first in importance as regards value added by manufacture and wage-earners employed. In 1929, the wood and paper products group produced 18·6 p.c. of the total output of all Canadian industries, employed 24·4 p.c. of all the wage-earners and contributed 22·0 p.c. of the total value added by manufacture.

The pulp and paper industry is the leading industry of the group. In 1929 there were 108 mills consuming about 5,280,000 cords of pulpwood during the year and employing hydro electric power to the extent of about 1,400,000 h.p. Canada now occupies first place among the countries of the world in the production of newsprint. This group supplies some of the leading articles entering into the export trade of Canada. Of all the manufactured products exported from Canada, printing paper comes first, planks and boards third, and wood pulp fourth.

Leading Exports, Calendar Year 1929

Products	Unit	Quantity	Value
			$
Newsprint paper	Cwt.	50,309,896	148,865,648
Wheat flour	Bbl.	9,573,880	52,748,909
Planks and boards	M ft.	1,754,633	49,353,512
Wood pulp	Cwt.	16,616,966	43,367,984

The volume of production of this group, therefore, depends largely on the demand in foreign countries for wood and paper products. The volume since 1923 increased 53·1 p.c. All the industries in the group, with the exception of two, reported increased output in 1929 as compared with 1923. Sporting goods decreased by 16·5 p.c., and carriage and wagon materials by 46·9 p.c. The reduction in the output of sporting goods was no doubt due to increased importations and not to a decline in the domestic demand. The decrease in the volume of carriage and wagon materials no doubt reflects to some extent the change from horse-drawn to motor-driven vehicles. In this connection it is interesting to note that in spite of this change, the output of carriages, wagons and sleighs was 1·4 p.c. higher in 1929 than in 1923. The table below gives the growth of the volume of production of all the industries classified under wood and paper products.

Increase in the Volume of Production, Wood and Paper Products, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Wood and Paper Products	242·0	127·5	83·3	53·1
Pulp and paper	92·6	130·0	74·3	75·0
Sawmills	40·1	108·4	87·7	23·6
Printing and publishing	30·9	135·9	95·1	42·9
Printing and bookbinding	15·8	125·5	100·7	24·6
Paper boxes and bags	5·6	160·6	87·7	83·1
Lithographing and engraving	7·3	127·8	72·5	76·3
Stationery and envelopes	1·8	135·7	108·7	24·8
Roofing paper, wall board, etc	1·5	111·1	109·9	1·1
Wall paper	1·3	113·1	98·5	14·8
Stereotyping and electroplating	0·7	130·6	74·4	75·5
Blue printing	0·1	134·5	83·6	60·9
Paper goods, n.e.s	1·8	123·9	85·5	44·9
Sash, door and planing mills	14·7	132·3	94·8	39·6
Furniture	14·2	143·4	71·2	101·4
Boxes, baskets and crates	3·6	106·5	82·4	29·2

*1926 = 100.

Increase in the Volume of Production, Wood and Paper Products—Con.

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Wood and Paper Products—Con.				
Carriages, waggons and sleighs	2·9	115·6	114·0	1·4
Cooperage	0·6	145·0	109·8	32·1
Coffins and caskets	0·9	114·8	75·5	52·1
Sporting goods	0·4	120·4	144·2	−16·5
Boatbuilding	0·8	103·4	87·6	18·0
Lasts, trees and shoe findings	0·4	162·7	82·8	96·5
Handles, spools and wood turning	0·5	128·5	85·2	50·8
Carriage and waggon materials	0·4	65·6	123·6	−46·9
Woodenware	0·3	198·6	151·4	31·2
Clothes pins	0·1	96·1	71·1	35·2
Excelsior	0·1	117·2	74·9	56·5
Beekeepers' and poultrymen's supplies	0·1	190·0	40·0	375·0
Miscellaneous wood using industries	1·7	160·6	104·2	54·1
All other wood and paper industries	0·8	273·1	69·8	291·3

*1926 = 100.

Iron and its Products.—The industries engaged in the production of iron and its products were second in importance among the manufacturing industries of Canada. Of the total value of production 18·9 p.c. was credited to this group, while from the point of view of wage-earners employed and value added by manufacture, this group also ranked second with 19·7 p.c. and 18·8 p.c. respectively. In spite of an increase of 57·8 p.c. in the volume of production since 1923, the plants engaged in the production of iron and its products still supply only about two-thirds of the domestic demand, as the following figures for 1929 show:—

Production	$738,012,980	
Imports	342,480,427	1,080,493,407
Exports		4,808,986
Consumption		1,075,684,421

The table below gives a list of the most important items of importation during the fiscal year ending March 31, 1930.

Machinery	$69,117,528
Rolling mill products	61,894,114
Automobile parts	35,746,929
Automobiles	34,464,666
Farm implements	30,075,453
Engines and boilers	15,146,437

All of the industries of this group have reported substantial increases in the volume of production since 1923. For the group as a whole there was an increase of 57·8 p.c. The output of automobiles more than doubled itself since 1923, the number having increased by 124·8 p.c. Pig iron, castings and forgings, machinery, railway rolling stock and sheet metal products were the other major industries to report substantial increases in the volume of production as the table following shows:—

Increase in the Volume of Production, Iron and Its Products, 1923-1929

Industry	Weight	Index of volume of production*		increase Percentage since 1923
		1929	1923	
Iron and Its Products	176·0	129·7	82·2	57·8
Pig iron, steel ingots and rolled iron and steel products	15·1	156·8	98·1	59·9
Castings and forgings	30·6	116·8	93·8	24·5
Boilers, tanks and engines	2·0	189·7	100·2	89·3
Agricultural implements	14·2	98·4	67·0	46·9
Machinery	17·8	130·8	86·3	51·6
Automobiles	31·5	118·9	52·9	124·8
Automobile parts and accessories	4·4	174·0	123·5	40·9
Bicycles	0·5	113·2	95·3	18·8
Railway rolling stock	24·7	169·2	95·7	76·8
Wire and wire goods	6·6	125·5	96·8	29·6
Sheet metal products	13·0	125·9	84·9	48·3
Hardware and tools	11·1	115·3	95·0	21·4
Miscellaneous iron and steel products	4·5	135·8	83·5	62·6

*1926 = 100.

Non-Ferrous Metals.—The industries comprising this group reported an increase of 90·3 p.c. in the volume of production in 1929 over that of 1923. An increase of 165·2 p.c. in the production of electrical apparatus and supplies, 134·1 p.c. in aluminium products, 63·7 p.c. in brass and copper products and 46·8 p.c. in non-ferrous metal smelting and refining accounts for the fact that the production of manufactured commodities of this group increased more rapidly than any other group during the period under review.

The largest industry of the group is the manufacture of electrical apparatus and supplies, with a gross value of production in 1929 of $113,796,002. The tremendous increase of 165·2 p.c. in the output of this industry is accounted for by the increasing use of electrical equipment for domestic and industrial purposes.

The second largest industry of this group as regards the value of production is that of smelting and refining of non-ferrous metals. This industry experienced a great boom during recent years. Due to the paucity of the data in constructing the index, however, the full development is not reflected by the index of the volume of production. The full effect of this expansion will no doubt be reflected in future years.

The increasing use of aluminium in the manufacture of kitchen utensils and electrical transmission lines is also reflected in an increase of 134·1 p.c. in the output of the aluminium products industry.

Increase in the Volume of Production, Non-Ferrous Metal Products, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Non-Ferrous Metal Products	66·0	138·7	72·9	90·3
Aluminium products	1·0	173·9	74·3	134·1
Brass and copper products	7·0	148·6	90·8	63·7
Electrical apparatus and supplies	28·0	148·0	55·8	165·2
Lead, tin and zinc products	1·0	143·2	49·8	187·6
Miscellaneous non-ferrous metal products	1·0	101·7	85·1	19·5
Non-ferrous metal smelting and refining	24·0	133·0	90·6	46·8
Precious metal products	4·0	102·2	91·8	11·3

*1926 = 100.

Non-Metallic Minerals.—Considerable increases were also reported in the output of non-metallic mineral products in 1929 as compared with 1923. With the exception of the miscellaneous non-metallic mineral products industry, all the other industries of the group increased their output during the period under review. This group is dominated by four large industries that produced in 1929 about 72 p.c. of the total value of production as shown below:—

Industry	Value of Production, 1929
	$
Petroleum products	99,408,314
Coke and gas	39,910,443
Cement	19,337,235
Glass products	15,507,442
Total for the four industries	174,163,434
Total for the group	242,023,518

The main feature of the growth of this group is the increase of 161·8 p.c. in the volume of petroleum products manufactured. This is a reflection of the increase in the number of motor vehicles as well as an increase in the demand of fuel oils for heating purposes. The increase of 40·7 p.c. in the output of the coke and gas industry was due to the increasing use of coke in house furnaces, the large demand for nitrates as fertilizers and the extended use of tar products. The

volume of cement produced also increased 62·9 p.c. since 1923. This reflects the increased activity of the construction industries, the value of construction contracts awarded having increased from $314,254,300 in 1923 to $576,651,800 in 1929, an increase of 83·5 p.c. The glass industry in Canada cannot supply the domestic demand, there being no plate or sheet glass manufactured. About 40 p.c. of the glass used in Canada must therefore be imported. The large increase in the value of glass and glass products imported into Canada, which rose from $7,629,598 in 1923 to $10,569,457 in 1929, no doubt accounts for the relatively small increase in the volume of production of this industry, viz. 16·2 p.c.

The following table gives the growth of all the industries of the group.

Increase in the Volume of Production, Non-Metallic Mineral Products, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Non-Metallic Mineral Products	65·0	145·0	88·9	63·1
Aerated and mineral waters	3·1	131·8	104·9	25·6
Asbestos and allied products	0·5	191·6	46·0	316·5
Cement	9·2	141·1	86·6	62·9
Cement products	1·2	186·5	45·3	311·7
Clay products, domestic clay	7·3	137·1	99·3	38·1
Clay products, imported clay	1·1	149·0	114·5	30·1
Coke	3·9	127·3	90·5	40·7
Gas, illuminating and fuel	8·5			
Glass products	4·8	130·0	111·9	16·2
Lime	2·7	168·5	84·6	99·2
Miscellaneous non-metallic mineral products	4·0	164·2	198·5	−17·3
Petroleum products	14·2	170·4	65·1	161·8
Salt	1·4	127·0	77·8	63·2
Sand-lime brick	0·3	155·8	119·5	30·4
Stone, ornamental and monumental	2·8	124·4	85·1	46·2

*1926 = 100.

Chemicals and Allied Products.—Except for the wood distillation industry, which has suffered from the competition of synthetic products, the chemical industries of Canada have improved their position in recent years, the volume of production having increased 43·3 p.c. since 1923. The four largest industries which produce about two-thirds of the entire output of the chemical products group, have all reported increases in the volume of production. The volume of acids, alkalies, salts and compressed gases which comprise the largest industry of the group increased 73·0 p.c.; that of paints, pigments and varnishes 36·2 p.c.; soaps, washing compounds and toilet preparations 30·3 p.c., and medicinal and pharmaceutical preparations 25·6 p.c.

It is interesting to note that in 1929 about 90 p.c. of the domestic demand for chemicals and allied products was supplied by Canadian industries as the following figures show:—

	1929
Value of production of chemicals and allied products	$138,545,221
Imports	40,131,178
	$178,676,399
Exports	21,827,696
Consumption	$156,848,703

Increase in the Volume of Production, Chemicals and Allied Products, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Chemicals and Allied Products	45·0	120·4	84·0	43·3
Acids, alkalies, salts and compressed gases	12·1	118·7	68·6	73·0
Coal tar products	0·9	135·4	71·1	90·4
Explosives, ammunition, fireworks and matches	3·8	125·2	92·2	35·8
Fertilizers	0·3	130·8	78·3	67·0
Inks dyes and colours	1·3	143·4	91·9	56·0
Medicinal and pharmaceutical preparations	7·1	114·4	91·1	25·6
Miscellaneous chemical industries	4·6	121·4	89·3	35·9
Paints, pigments and varnishes	8·4	123·5	90·7	36·2
Soaps, washing compounds and toilet preparations	5·8	116·2	89·2	30·3
Wood distillates and extracts	0·7	114·4	131·9	−13·3

*1926 = 100.

Miscellaneous Industries Group.—This group is composed of 23 unrelated industries producing a great variety of products. With a few notable exceptions, the majority of the industries of this group, reported increases in the volume of production. The output of the refrigerator industry dropped 68·4 p.c. since 1923, while that of the scientific and professional equipment industry dropped 24·0 p.c. The drop in the volume of refrigerators produced is due to the change from the ordinary to electrical refrigerators, with the result that their production is passing from the refrigerator industry to that of electrical apparatus and supplies. The table below gives the growth of all the industries comprising the group.

Increase in the Volume of Production, Miscellaneous Industries, 1923-1929

Industry	Weight	Index of volume of production*		Percentage increase since 1923
		1929	1923	
Miscellaneous Industries	28·0	110·0	80·1	37·3
Advertising and other novelties	0·1	263·0	100·0	163·0
Artificial feathers and flowers	0·2	63·0	110·1	−42·8
Bridge building	5·2	153·4	44·9	241·6
Brooms, brushes and mops	1·6	104·1	82·4	26·3
Buttons	0·5	95·6	77·5	23·4
Candles and tapers	0·1	121·7	64·9	87·5
Fountain pens	0·5	165·1	81·6	102·3
Ice, artificial	0·8	99·1	70·2	41·2
Jewel cases and silverware cabinets	0·1	227·5	119·6	90·2
Mattresses and springs	2·8	126·9	89·8	41·3
Motion pictures	0·1	360·5		
Muscial instruments and materials	4·4	80·4	90·2	−10·9
Refrigerators	0·4	119·9	379·6	−68·4
Regalia and society emblems	0·1	98·5	78·8	25·0
Scientific and professional equipment	3·4	87·9	115·7	−24·0
Shipbuilding and repairs	6·3	105·1	81·4	29·1
Rubber stamps and stencils	0·3	124·4	103·7	20·0
Statuary, art goods and church supplies	0·3	153·2	94·0	63·0
Store and display fixtures	0·1	96·7	72·2	33·9
Toys and games	0·2	146·4	75·9	92·9
Typewriter supplies	0·2	146·3	117·0	25·0
Umbrellas and parasols	0·2	81·9	61·0	34·3
All other industries	0·1	79·4	103·4	−23·2

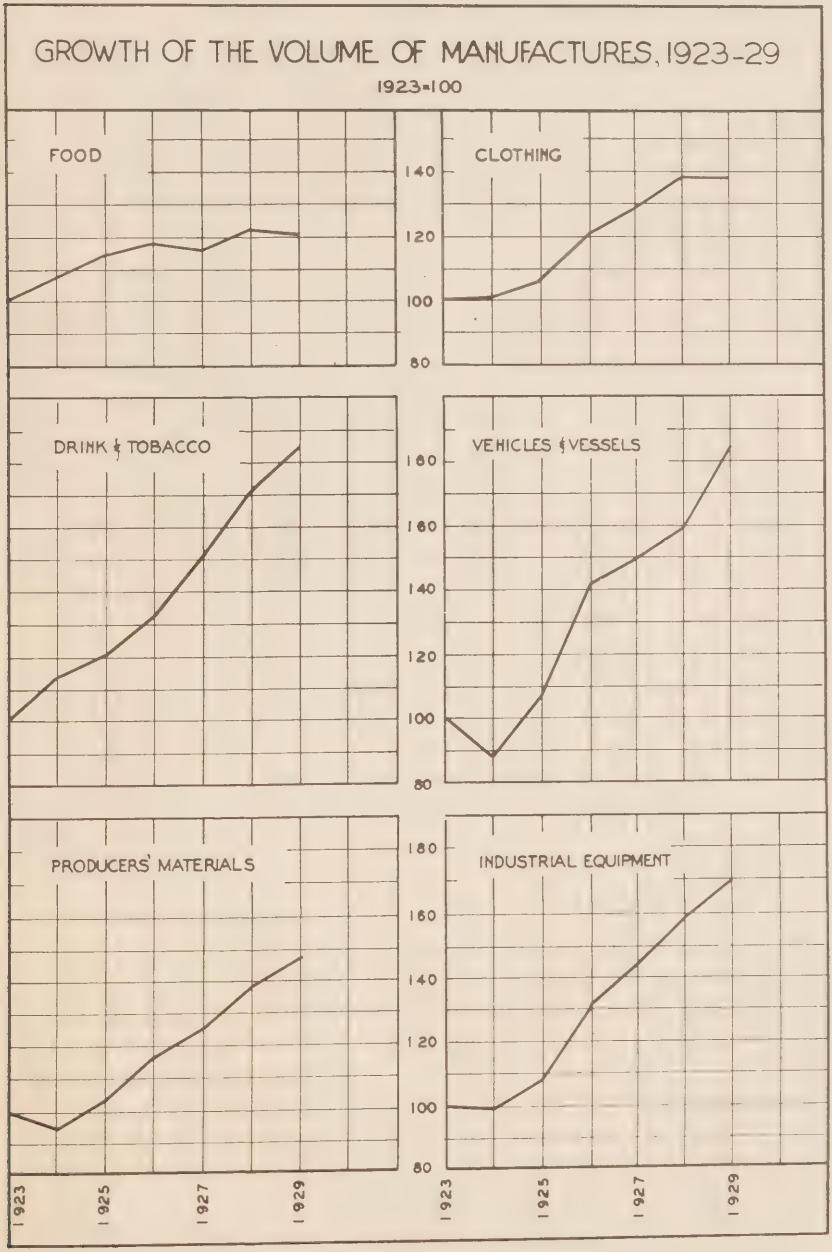
*1926 = 100.

GROWTH OF THE VOLUME OF MANUFACTURING PRODUCTION ON THE PURPOSE CLASSIFICATION

The table below reveals some striking features of the growth of manufactures, viewed in accordance with the purpose of the principal products of each industry. For the period under review, the "drink and tobacco" and "vehicles and vessels" groups reported the largest gain in the volume of production, with increases of 84·9 p.c. and 84·3 p.c. respectively. Another notable feature revealed by the table is the moderate increase of 21·4 p.c. in the volume of food products manufactured in Canada since 1923, as compared with an increase of 50·2 p.c. for manufacturing in general. On analysing the industries composing the food products group several facts stand out pre-eminently. The output of fruit and vegetable preparations increased 121·4 p.c. This growth is indeed remarkable as it represents a corresponding increase in the domestic demand for these products, the foreign trade being relatively small as compared with the domestic production. Imports in 1929 were valued at $7,608,426 and exports at $2,841,734. Compared with this large increase in the volume of fruit and vegetable preparations there was an increase of only 21·8 p.c. in the volume of breadstuffs produced, 11·7 p.c. in the output of sugar, 10·6 p.c. in the production of butter, cheese and other milk products, and 8 p.c. in the output of the meat-packing industry. These figures do not, however, disclose the full increase in the domestic consumption of these items as their output is affected by the demand in foreign countries. The relatively small increase in the volume of production of food products is therefore due to decreased exportation, as the following table shows:—

Exports of a Specified List of Food Products, 1923 and 1929

Products	Unit	1923	1929
Sugar	cwt.	1,191,213	285,310
	$	12,023,173	1,407,349
Butter	cwt.	131,737	14,004
	$	4,905,608	583,065
Cheese	cwt.	1,162,019	929,461
	$	23,445,401	18,503,575
Bacon and hams, shoulders and sides	cwt.	1,003,048	287,727
	$	18,947,005	6,868,646


GROWTH OF THE VOLUME OF MANUFACTURES, 1923-29
1923=100
FOOD
CLOTHING
DRINK & TOBACCO
VEHICLES & VESSELS
PRODUCERS' MATERIALS
INDUSTRIAL EQUIPMENT
140
120
100
80
180
160
140
120
100
80
1923
1925
1927
1929

An increase of 74·5 p.c. in house furnishings and 69·7 p.c. in industrial equipment are some of the other outstanding features of the growth of the volume of production since 1923.

The table below reveals the slight depression in 1924, which did not, however, affect all industries. No depression was experienced by the food, clothing, drink and tobacco, house furnishings and miscellaneous groups. The output of the other five groups, however, was substantially lower. The books and stationery group, which includes printing and publishing and stationery and envelopes, was the hardest hit, the volume of production having dropped 16·6 p.c. as compared with 1923.

Growth of the Volume of Production, Purpose Classification

1923 = 100

Group	Weight	1929	1928	1927	1926	1925	1924	1923
All Industries	1,000·00	150·2	141·9	130·2	122·2	107·5	98·2	100·0
Food	144·00	121·4	122·4	115·5	118·1	114·0	107·3	100·0
Clothing	104·10	138·5	138·7	128·6	120·6	107·5	100·1	100·0
Drink and tobacco	61·10	184·9	171·6	151·3	131·6	121·8	114·6	100·0
Personal utilities	17·94	119·3	125·2	124·5	117·1	102·2	95·4	100·0
House furnishings	23·46	174·5	158·4	153·1	126·7	109·1	111·8	100·0
Books and stationery	58·40	141·2	132·0	119·3	107·4	97·6	83·4	100·0
Vehicles and vessels	85·50	184·3	158·5	148·9	140·1	107·7	87·1	100·0
Producers' materials	344·00	146·9	138·0	125·0	117·8	103·8	94·9	100·0
Industrial equipment	152·10	169·7	157·9	142·6	131·1	108·3	99·7	100·0
Miscellaneous	9·40	147·1	133·4	124·1	117·6	108·4	104·8	100·0

In order to facilitate a more comprehensive view of the changes in the output of Canadian industry, the table below, which shows the rank of each group on the basis of the value of production in 1929, is given.

Rank of Each Group, 1929

Group	Value of production, 1929 (in millions)	Percentage of whole
	$	
Food	838	21·4
Clothing	363	9·3
Drink and tobacco	209	5·4
Personal utilities	61	1·5
House furnishings	78	2·0
Books and stationery	156	4·0
Vehicles and vessels	408	10·4
Producers' materials	1,151	29·5
Industrial equipment	615	15·8
Miscellaneous	27	0·7
	3,906	100·0

Details of the growth of each group and sub-group of all the industries, classified according to the purpose of the principal products, are given in Table 2.

GROWTH OF THE VOLUME OF PRODUCTION, BY PROVINCES

As stated previously, the number of wage-earners reported annually to the Dominion Bureau of Statistics furnishes a basis for estimating the changes in the volume of good produced. This measure does not, however, disclose the entire growth. For reasons which have already been explained, the number of wage-earners has a tendency to underestimate the growth of production. The following table, which verifies this contention, shows that the error is cumulative and that for the period under review there was an increasing deviation between the index of the volume of production and the index of the number of wage-earners. Between 1923 and 1929 the number of wage-earners increased by one-third, while the volume of production increased by one-half.

Comparison of the Growth of the Volume of Production and the Number of Wage-earners Employed

Year	Growth of the volume of production	Growth of the number of wage-earners	Index of volume of production per wage-earner
1923	100·0	100·0	100·0
1924	98·2	96·4	101·9
1925	107·5	104·1	103·2
1926	122·2	111·6	109·5
1927	130·2	119·0	109·4
1928	141·9	126·4	112·3
1929	150·2	133·5	112·5

In view of the above facts, the table below, which has been prepared to show the growth of the volume of production in each province, has been estimated on the basis of the growth in the number of wage-earners employed, and the increase in the average volume of production per wage-earner.

The most remarkable fact revealed by this table is the increasing industrialization of the West. For the period under review the Western provinces have experienced a proportionately greater expansion than the two main manufacturing provinces of Ontario and Quebec. Saskatchewan reported the greatest development of any province with an increase of 126·1 p.c. in the volume of production.

Another significant fact is the failure of the Maritime provinces to keep pace with the rest of Canada. Nova Scotia and New Brunswick had an increased output of only 34·0 p.c. compared with 50·2 p.c. for the whole of Canada, while Prince Edward Island actually reported a reduction of 14·8 p.c. in the volume of production since 1923. The provinces of Ontario and Quebec which contribute respectively 51·9 p.c. and 28·5 p.c. of the total value of products manufactured in Canada in 1929, also reported remarkable increases of 48·1 p.c. and 47·2 p.c. respectively.

Growth of the Volume of Production by Provinces, 1923-1929

	Wage-earners employed		Percentage of wage-earners 1929 to 1923[1]
	1929	1923	
	No.	No.	
Canada	588,477	440,798	133·5
Prince Edward Island	1,904	2,515	75·7
Nova Scotia	18,825	15,325	122·8
New Brunswick	16,613	14,442	115·0
Quebec	184,311	140,916	130·8
Ontario	284,583	216,243	131·6
Manitoba	21,055	11,220	187·6
Saskatchewan	5,628	2,798	201·0
Alberta	10,949	6,578	166·4
British Columbia	44,609	30,761	145·0

	Percentage of volume of production, 1929 to 1923[1]	Value of production[2]	Percentage of whole
		$	
Canada	150·2	3,906,487,894	100·0
Prince Edward Island	85·2	4,435,092	0·1
Nova Scotia	138·2	90,479,437	2·3
New Brunswick	129·4	68,616,988	1·8
Quebec	147·2	1,114,290,946	28·5
Ontario	148·1	2,029,221,705	51·9
Manitoba	211·1	157,363,500	4·0
Saskatchewan	226·1	76,265,947	2·0
Alberta	187·2	102,438,096	2·6
British Columbia	163·1	263,376,183	6·8

[1] The increased number of wage-earners in 1929 is multiplied by 9/8, the increased volume of production per wage-earner in 1929 as compared with 1923, as shown in the table on the preceding page.

[2] Exclusive of "Central Electric Stations."

GROWTH OF THE VOLUME OF PRODUCTION OF CENTRAL ELECTRIC STATIONS

Central Electric Stations although considered as a distinct industrial group in the Census of Manufactures have nevertheless been omitted in the index of the quantity of manufacturing production. Central Electric Stations are in many respects in a class by themselves. They use no raw materials with the result that the value added by manufacture is proportionately greater than in any other group. The animal products group, for example, employing 67,670 persons in 1929, reported a value added by manufacture of $132,409,973 as compared with a value added by manufacture of $122,883,446 by Central Electric Stations with an employment of only 16,164 persons. In capital invested this industry is also unparalleled. With a gross value of production of only $122,883,446, the capital invested amounted to $1,055,731,532 compared with a value of production of $3,906,487,894 and a capital investment of $4,027,283,222 for all the other industrial groups. In this industry, consequently, the main items of expenditure are for upkeep of plant and payment of interest charges on the huge capital investment.

As explained previously, the system of weighting adopted is based on the value added by manufacture (gross value of products less materials) in 1926. If Central Electric Stations were included in the index, it would have to be assigned a weight which would be far greater than its importance as an industrial group would justify. As a result of this, fluctuations in this group would be a disturbing factor in estimating the volume of manufacturing production. However, in order to give a comprehensive picture of manufacturing as a whole, the following table is included to show the development of Central Electric Stations since 1923.

Growth of Central Electric Stations, 1923 to 1929

Year	Wage-earners employed	Increase since 1923	K.W.H. generated	Increase since 1923
	No.	p.c.	thousands	p.c.
1923	6,196	.....	8,099,192	.....
1924	7,269	17·3	9,315,277	15·0
1925	7,537	21·6	10,110,459	24·8
1926	7,602	22·7	12,093,445	49·3
1927	8,699	40·4	14,549,099	79·6
1928	9,641	55·6	16,337,804	101·7
1929	9,350	50·9	17,962,515	121·8

Table 1.—Index of Physical Volume of Production for Industries and Groups, 1923-29

(1926=100)

——	Weight	1929	1928	1927	1926	1925	1924	1923
Vegetable Products	174·0	121·6	118·3	107·7	100·0	94·6	85·5	78·3
Flour milling industry	18·3	103·7	107·3	100·4	100·0	93·2	107·4	97·9
Malt and malt mills	1·3	157·8	139·6	116·8	100·0	93·9	81·1	64·2
Rice mills	0·1	98·3	88·4	101·4	100·0	97·4	93·0	94·1
Bread and other bakery products	21·5	106·7	112·4	100·9	100·0	97·5	91·8	85·6
Biscuits, confectionery, cocoa and chocolate	19·3	120·0	112·5	108·5	100·0	95·2	89·2	93·1
Miscellaneous food industries	3·2	123·3	112·4	105·2	100·0	88·3	78·2	79·6
Starch, glucose, etc.	1·3	106·2	108·4	103·8	100·0	92·2	99·3	98·0
Macaroni and vermicelli	0·4	90·8	99·9	102·2	100·0	78·8	78·2	63·2
Ice cream cones	0·2	116·4	112·2	96·4	100·0	85·5	87·5	84·4
Fruit and vegetable preparations	9·3	128·4	119·3	97·3	100·0	100·6	77·4	58·0
Coffee, tea and spices	2·3	112·9	107·5	103·8	100·0	90·4	98·9	97·0
Sugar refining	11·0	81·8	81·5	85·8	100·0	103·2	77·1	73·7
Maple syrup and maple sugar	0·1	347·0	202·7	277·4	100·0	98·6	99·6	116·3
Syrups	0·1	97·4	57·6	114·7	100·0	112·5	142·6	124·0
Breweries	20·8	123·2	122·7	110·6	100·0	97·9	86·9	76·1
Distilleries	6·1	277·1	243·0	185·9	100·0	89·7	106·2	49·9
Wine and grape juice	0·8	223·1	157·4	104·8	100·0	53·7	47·7	39·8
Rubber	26·1	128·6	130·3	116·4	100·0	95·4	69·7	68·0
Tobacco	30·3	133·3	120·7	108·4	100·0	89·8	84·6	81·3
Linseed oil and oilcake	0·8	107·4	108·6	99·9	100·0	87·3	83·4	79·3
Miscellaneous vegetable products	0·7	116·9	96·1	108·0	100·0	86·4	70·8	80·4
Animal Products	88·0	95·4	100·8	97·7	100·0	92·0	87·2	81·4
Slaughtering and meat packing	19·9	97·2	95·8	100·8	100·0	106·0	97·7	91·3
Butter and cheese	20·0	94·8	96·3	95·8	100·0	95·0	93·8	86·7
Fish curing and packing	10·1	77·9	98·9	73·8	100·0	87·3	84·8	74·1
Condensed milk	2·8	111·2	109·2	103·4	100·0	98·7	92·1	92·2
Sausage and sausage casings	0·5	99·9	95·0	76·7	100·0	67·8	53·4	53·0
Boots and shoes, leather	15·7	103·1	104·3	104·4	100·0	85·8	84·6	89·4
Fur goods	4·8	106·2	109·4	104·2	100·0	73·5	61·8	49·5
Gloves and mittens, leather	1·1	133·3	135·3	120·9	100·0	90·1	81·6	93·9
Fur dressing and dyeing	1·8	140·2	146·5	125·7	100·0	77·0	63·8	45·2
Boot and shoe findings	0·5	94·8	98·0	94·4	100·0	102·0	99·5	97·2
Leather, tanned, etc.	6·4	81·7	102·2	104·6	100·0	91·4	87·7	76·0
Harness, saddlery and miscellaneous leather goods	3·8	85·1	101·4	101·3	100·0	80·7	71·1	68·9
Animal hair goods	0·3	105·1	91·8	93·9	100·0	94·9	99·0	113·3
Animal oils and fats	0·2	87·8	96·5	104·5	100·0	92·8	81·8	111·5
Human hair goods	0·1	61·9	61·9	90·5	100·0	100·0	114·3	85·7
Textiles and Textile Products	116·0	113·6	114·9	107·4	100·0	87·8	82·0	84·9
Cotton yarn and cloth	22·9	98·2	106·2	103·0	100·0	80·2	70·4	80·1
Cotton thread	1·6	104·9	101·4	109·4	100·0	91·4	87·3	96·7
Batting and wadding	0·8	93·9	96·7	105·3	100·0	78·0	73·1	51·8
Cotton and wool waste	0·4	153·1	130·7	135·2	100·0	105·9	121·2	84·0
Cotton textiles, n.e.s.	0·4	119·4	104·4	109·3	100·0	82·6	85·8	17·1
Miscellaneous textiles, n.e.s.	0·4	97·2	95·9	96·9	100·0	94·5	73·8	170·0
Woollen cloth	4·9	93·6	112·9	104·0	100·0	97·3	97·7	106·9
Woollen yarn	2·1	117·2	113·7	109·7	100·0	89·6	75·0	99·0
Carpets, mats and rugs	1·2	166·1	143·9	112·3	100·0	84·4	80·0	128·5
Woollen goods, n.e.s.	2·0	104·4	115·0	106·4	100·0	72·5	62·0	68·7
Hosiery, knit goods, and fabric gloves	17·2	111·4	113·6	101·8	100·0	87·7	80·8	83·9
Clothing, women's factory	15·6	121·2	116·8	111·8	100·0	95·8	92·5	92·0
Clothing, men's factory	14·0	103·0	106·6	103·4	100·0	97·4	98·9	88·0
Furnishing goods, men's	7·2	119·9	120·9	108·9	100·0	85·7	80·6	89·2
Hats and caps	4·9	111·7	116·9	112·3	100·0	79·4	68·9	65·8
Silk goods	3·6	205·0	167·2	143·7	100·0	70·0	49·6	50·9
Corsets	1·3	103·6	104·3	99·0	100·0	105·6	92·2	110·7
Oiled and waterproof clothing	0·4	143·8	155·2	159·8	100·0	91·8	95·9	78·4

Table 1.—Index of Physical Volume of Production for Industries and Groups, 1923-29—Continued

1926 = 100

—	Weight	1929	1928	1927	1926	1925	1924	1923
Textiles and Textile Products–*Con.*								
Bags, cotton and jute	1·3	102·4	105·5	100·4	100·0	97·4	97·1	86·6
Cordage, rope and twine	2·0	129·2	121·9	106·9	100·0	87·8	96·0	79·9
Awnings, tents and sails	0·6	135·3	135·6	122·3	100·0	99·1	99·1	109·3
Linen goods	0·1	83·4	94·9	103·1	100·0	67·0	68·5	63·1
Flax, dressed	0·1	78·3	100·2	169·7	100·0	139·3	84·0	84·0
Dyeing, cleaning and laundry work	11·0	139·8	128·1	110·7	100·0	89·1	89·1	95·8
Wood and Paper Products	242·0	127·5	118·4	107·7	100·0	88·4	81·8	83·3
Pulp and paper	92·6	130·0	117·9	105·2	100·0	84·7	76·8	74·3
Sawmills	40·1	108·4	102·7	100·0	100·0	93·2	93·4	87·7
Printing and publishing	30·9	135·9	122·9	110·4	100·0	97·5	80·0	95·1
Printing and bookbinding	15·8	125·5	126·4	111·5	100·0	77·5	73·0	100·7
Paper boxes and bags	5·6	160·6	145·2	126·6	100·0	82·9	73·8	87·7
Lithographing and engraving	7·3	127·8	119·7	113·0	100·0	92·8	75·6	72·5
Stationery and envelopes	1·8	135·7	127·4	103·3	100·0	88·1	79·3	108·7
Roofing paper, wall board, etc	1·5	111·1	114·1	107·9	100·0	82·7	78·7	109·9
Wall paper	1·3	113·1	114·5	104·2	100·0	94·7	98·1	98·5
Stereotyping and electrotyping	0·7	130·6	109·1	108·7	100·0	100·8	72·3	74·4
Blue printing	0·1	134·5	123·6	125·5	100·0	89·1	87·3	83·6
Paper goods, n.e.s	1·8	123·9	107·7	120·7	100·0	99·8	88·6	85·5
Sash, door and planing mills	14·7	132·3	137·3	111·8	100·0	98·1	94·3	94·8
Furniture	14·2	143·4	124·9	129·5	100·0	82·5	84·0	71·2
Boxes, baskets and crates	3·6	106·5	94·4	85·3	100·0	96·1	83·0	82·4
Carriages, waggons and sleighs	2·9	115·6	119·4	96·6	100·0	84·4	103·9	114·0
Cooperage	0·6	145·0	153·0	114·3	100·0	98·7	113·1	109·8
Coffins and caskets	0·9	114·8	105·9	96·8	100·0	85·3	84·4	75·5
Sporting goods	0·4	120·4	114·2	101·6	100·0	85·3	96·0	144·2
Boatbuilding	0·8	103·4	113·4	101·5	100·0	78·3	90·0	87·6
Lasts, trees and shoe findings	0·4	162·7	152·6	156·5	100·0	85·7	84·7	82·8
Handles, spools and wood turning	0·5	128·5	117·1	108·1	100·0	93·4	86·1	85·2
Carriage and waggon materials	0·4	65·6	73·8	89·2	100·0	95·9	118·5	123·6
Woodenware	0·3	198·6	199·8	113·6	100·0	108·4	118·6	151·4
Clothes pins	0·1	96·1	160·9	124·0	100·0	94·1	133·7	71·1
Excelsior	0·1	117·2	106·9	123·2	100·0	52·3	74·9	74·9
Beekeepers' and poultrymen's supplies	0·1	190·0	150·0	120·0	100·0	40·0	60·0	40·0
Miscellaneous wood using industries	1·7	160·6	146·5	127·6	100·0	84·9	100·7	104·2
All other wood and paper using industries	0·8	273·1	185·4	132·1	100·0	108·8	69·8	69·8
Iron and Its Products	176·0	129·7	113·5	102·9	100·0	78·2	66·4	82·2
Pig iron, steel ingots, and rolled iron and steel products	15·1	156·8	141·0	108·7	100·0	88·0	74·7	98·1
Castings and forgings	30·6	116·8	104·8	91·6	100·0	77·2	63·4	93·8
Boilers, tanks and engines	2·0	189·7	133·1	101·3	100·0	74·0	98·9	100·2
Agricultural implements	14·2	98·4	106·8	112·2	100·0	67·7	60·8	67·0
Machinery	17·8	130·8	112·5	104·2	100·0	85·9	82·6	86·3
Automobiles	31·5	118·9	109·6	89·2	100·0	72·6	53·2	52·9
Automobile parts and accessories	4·4	174·0	129·1	109·1	100·0	96·6	96·4	123·5
Bicycles	0·5	113·2	101·3	88·7	100·0	104·9	83·0	95·3
Railway rolling stock	24·7	169·2	109·2	120·9	100·0	65·9	57·5	95·7
Wire and wire goods	6·6	125·5	118·6	98·7	100·0	84·5	52·5	96·8
Sheet metal products	13·0	125·9	118·6	111·9	100·0	89·8	83·2	84·9
Hardware and tools	11·1	115·3	107·1	105·3	100·0	86·8	81·6	95·0
Miscellaneous iron and steel products	4·5	135·8	150·0	115·0	100·0	102·1	80·8	83·5

Table 1.—Index of Physical Volume of Production for Industries and Groups, 1923-29—Continued

1926 = 100

	Weight	1929	1928	1927	1926	1925	1924	1923
Non-Ferrous Metal Products	66·0	138·7	128·4	115·4	100·0	89·5	79·1	72·9
Aluminium products	1·0	173·9	146·7	113·6	100·0	93·2	81·1	74·3
Brass and copper products	7·0	148·6	131·6	109·5	100·0	88·7	83·3	90·8
Electrical apparatus and supplies	28·0	148·0	137·5	111·3	100·0	81·7	65·2	55·8
Lead, tin and zinc products	1·0	143·2	125·9	107·4	100·0	84·0	64·7	49·8
Miscellaneous non-ferrous metal products	1·0	101·7	100·0	106·6	100·0	103·3	88·4	85·1
Non-ferrous metal smelting and refining	24·0	133·0	122·4	125·7	100·0	99·1	96·7	90·6
Precious metal products	4·0	102·2	105·4	101·2	100·0	90·1	85·5	91·8
Non-Metallic Mineral Products	65·0	145·0	123·5	108·9	100·0	87·4	85·2	88·9
Aerated and mineral waters	3·1	131·8	116·7	105·3	100·0	104·8	94·0	104·9
Asbestos and allied products	0·5	191·6	141·2	152·6	100·0	92·0	36·2	46·0
Cement	9·2	141·1	126·6	115·6	100·0	93·2	86·1	86·6
Cement products	1·2	186·5	131·9	100·0	100·0	94·4	51·8	45·3
Clay products, domestic clay	7·3	137·1	122·7	110·8	100·0	96·1	88·1	99·3
Clay products, imported clay	1·1	149·0	117·6	107·6	100·0	92·9	83·8	114·5
Coke	3·9	127·3	111·9	101·5	100·0	68·7	59·4	76·0
Gas, illuminating and fuel	8·5				100·0	96·6	94·6	98·0
Glass products	4·8	130·0	106·9	103·1	100·0	91·1	105·4	111·9
Lime	2·7	168·5	122·9	107·6	100·0	86·9	76·9	84·6
Miscellaneous non-metallic mineral products	4·0	164·2	126·5	111·5	100·0	83·5	116·3	198·5
Petroleum products	14·2	170·4	142·4	113·8	100·0	75·6	77·8	65·1
Salt	1·4	127·0	115·9	104·2	100·0	91·9	80·0	77·8
Sand-lime brick	0·3	155·8	163·6	144·9	100·0	137·0	111·1	119·5
Stone, ornamental and monumental	2·8	124·4	112·6	102·3	100·0	84·7	91·7	85·1
Chemicals and Allied Products	45·0	120·4	117·3	106·7	100·0	92·0	85·9	84·0
Acids, alkalies, salts and compressed gases	12·1	118·7	126·4	103·6	100·0	91·4	79·0	68·6
Coal tar products	0·9	135·4	148·6	125·1	100·0	74·1	57·9	71·1
Explosives, ammunition, fireworks and matches	3·8	125·2	113·5	107·7	100·0	101·2	94·2	92·2
Fertilizers	0·3	130·8	145·3	133·9	100·0	110·1	82·9	78·3
Inks, dyes and colours	1·3	143·4	118·8	113·3	100·0	94·6	88·6	91·9
Medicinal and pharmaceutical preparations	7·1	114·4	108·0	108·6	100·0	94·1	95·5	91·1
Miscellaneous chemical industries	4·6	121·4	110·8	103·3	100·0	87·0	91·3	89·3
Paints, pigments and varnishes	8·4	123·5	123·8	109·1	100·0	90·4	82·5	90·7
Soaps, washing compounds and toilet preparations	5·8	116·2	105·1	104·5	100·0	91·6	86·2	89·2
Wood distillates and extracts	0·7	114·4	112·7	108·6	100·0	106·2	124·0	131·9
Miscellaneous Industries Group	28·0	110·0	109·3	110·5	100·0	84·9	86·6	80·1
Advertising and other novelties	0·1	263·0	196·3	120·4	100·0	83·3	118·5	100·0
Artificial feathers and flowers	0·2	63·0	83·3	92·0	100·0	106·5	99·3	110·1
Bridge building	5·2	153·4	132·7	115·3	100·0	67·5	69·9	44·9
Brooms, brushes and mops	1·6	104·1	104·3	102·2	100·0	94·5	109·0	82·4
Buttons	0·5	95·6	88·3	86·8	100·0	93·2	71·5	77·5
Candles and tapers	0·1	121·7	110·6	108·4	100·0	94·5	96·5	64·9
Fountain pens	0·5	165·1	215·5	200·4	100·0	98·8	92·7	81·6
Ice, artificial	0·8	99·1	101·0	93·7	100·0	96·4	88·0	70·2
Jewel cases and silverware cabinets	0·1	227·5	164·7	139·2	100·0	164·7	111·8	119·6
Mattresses and springs	2·8	126·9	127·5	111·9	100·0	91·2	86·0	89·8
Motion pictures	0·1	360·5	418·2	361·1	100·0			
Musical instruments and materials	4·4	80·4	99·8	111·6	100·0	81·6	76·9	90·2

Table 1.—Index of Physical Volume of Production for Industries and Groups, 1923-29—Concluded

1926=100

——	Weight	1929	1928	1927	1926	1925	1924	1923
Miscellaneous Industries Group—*Con.*								
Refrigerators	0·4	119·9	113·7	97·2	100·0	100·9	227·4	379·6
Regalia and society emblems	0·1	98·5	101·5	101·5	100·0	81·8	83·3	78·8
Scientific and professional equipment	3·4	87·9	80·8	104·8	100·0	87·6	102·3	115·7
Shipbuilding and repairs	6·3	105·1	101·0	109·0	100·0	88·7	88·8	81·4
Rubber stamps and stencils	0·3	124·4	122·0	119·5	100·0	99·4	98·2	103·7
Statuary, art goods and church supplies	0·3	153·2	180·0	160·0	100·0	117·9	96·2	94·0
Store and display fixtures	0·1	96·7	92·2	96·7	100·0	97·8	76·7	72·2
Toys and games	0·2	146·4	124·1	80·7	100·0	93·8	115·1	75·9
Typewriter supplies	0·2	146·3	113·6	101·5	100·0	96·8	97·8	117·0
Umbrellas and parasols	0·2	81·9	104·8	103·3	100·0	77·0	69·8	61·0
All other industries	0·1	79·4	79·3	83·2	100·0	105·1	107·0	103·4
All Manufactured Products	1000	122·9	116·1	106·5	100·0	87·9	80·3	81·8
Vegetable products	174	121·6	118·3	107·7	100·0	94·6	85·5	78·3
Animal products	88	95·4	100·8	97·7	100·0	92·0	87·2	81·4
Textiles and textile products	116	113·6	114·9	107·4	100·0	87·8	82·0	84·9
Wood and paper products	242	127·5	118·4	107·7	100·0	88·4	81·8	83·4
Iron and its products	176	129·7	113·5	102·9	100·0	78·2	66·2	82·2
Non-ferrous metal products	66	138·7	128·4	115·4	100·0	89·5	79·1	72·9
Non-metallic mineral products	65	145·0	123·5	108·9	100·0	87·4	85·2	88·9
Chemicals and allied products	45	120·4	117·3	106·7	100·0	92·0	85·9	84·0
Miscellaneous products	28	110·0	109·3	110·5	100·0	84·9	86·5	80·1

Table 2.—Index of Physical Volume of Production, Classified According to the Purpose of the Principal Product, 1923-29

1926=100

Purpose	Weight	1929	1928	1927	1926	1925	1924	1923
All Industries	1,000·0	122·9	116·1	106·5	100·0	87·9	80·3	81·8
Food	144·0	102·8	103·7	97·8	100·0	96·6	90·9	84·7
Breadstuffs	61·1	110·6	111·3	103·4	100·0	95·2	95·0	90·8
Fish	10·1	77·9	98·9	73·8	100·0	87·3	84·8	74·1
Fruit and vegetable preparations	10·0	127·5	117·5	98·0	100·0	99·5	76·9	58·0
Meats	20·4	97·3	95·8	100·1	100·0	104·8	96·3	90·1
Milk products	22·8	96·7	97·8	96·7	100·0	95·4	93·6	87·4
Oils and fats	0·2	87·8	96·5	104·5	100·0	92·8	81·8	111·5
Sugar industries	11·2	83·0	81·9	87·0	100·0	103·2	77·7	74·3
Coffee and spices	2·3	112·9	107·5	103·8	100·0	90·4	98·9	97·0
Miscellaneous	5·9	120·2	112·3	104·7	100·0	90·4	82·9	82·9
Clothing	104·1	114·8	115·0	106·6	100·0	89·1	83·0	82·9
Boots and shoes	24·2	110·0	111·1	103·8	100·0	87·7	77·8	79·8
Fur goods	6·6	114·6	118·5	109·7	100·0	74·4	62·3	48·3
Garments and personal furnishings	38·1	113·3	113·2	107·7	100·0	94·7	92·4	90·6
Gloves and mittens, leather	1·1	133·3	135·3	120·9	100·0	90·1	81·6	93·9
Hats and caps	5·1	109·2	115·4	111·4	100·0	80·3	69·9	67·1
Knitted goods, including fabric gloves	17·2	111·4	113·6	101·8	100·0	87·7	80·8	83·9
Waterproofs	0·4	143·8	155·2	159·8	100·0	91·8	95·9	78·4
Miscellaneous textiles, n.e.s.	11·4	138·0	126·8	110·2	100·0	89·3	88·5	97·7
Drink and Tobacco	61·1	140·5	130·4	115·0	100·0	92·6	87·1	76·0
Beverages, alcoholic	26·9	148·0	143·3	124·5	100·0	96·0	90·9	69·2
Beverages, non-alcoholic	3·9	146·8	124·1	105·2	100·0	91·4	81·8	86·0
Tobacco	30·3	133·3	120·7	108·4	100·0	89·8	84·6	81·3
Personal Utilities	17·94	101·9	106·9	106·3	100·0	87·3	81·5	85·4
Jewelry and time-pieces	4·10	104·2	106·4	102·0	100·0	91·4	86·1	92·4
Recreational supplies	5·00	85·0	102·7	109·3	100·0	82·3	79·6	93·0
Personal utilities, n.e.s.	8·84	111·7	109·6	106·7	100·0	88·3	80·6	78·6
House Furnishings	23·46	137·7	125·0	120·8	100·0	86·1	88·2	78·9
Books and Stationery	58·4	131·5	122·9	111·1	100·0	90·9	77·6	93·1
Vehicles and Vessels	85·5	131·6	113·2	106·3	100·0	76·9	62·2	71·4
Producers' Materials	344·0	124·7	117·2	106·1	100·0	88·1	80·6	84·9
Farm materials	0·3	130·8	145·3	133·9	100·0	110·1	82·9	78·3
Manufacturers' materials	232·6	124·4	117·1	105·9	100·0	85·6	77·2	82·9
Building materials	87·8	123·1	117·2	106·3	100·0	93·8	88·6	88·0
General materials	23·3	133·4	118·9	107·8	100·0	91·6	87·8	95·4
Industrial Equipment	152·1	129·5	120·5	108·8	100·0	82·6	76·1	76·3
Farming equipment	14·3	98·9	107·1	112·3	100·0	67·5	60·8	66·8
Manufacturing equipment	18·2	131·4	113·3	105·1	100·0	85·9	82·6	86·2
Trading equipment	1·5	116·4	110·7	101·3	100·0	96·2	93·1	83·3
Service equipment	11·8	107·9	101·6	108·7	100·0	92·0	96·5	96·3
Light, heat and power equipment	57·1	149·0	132·2	109·3	100·0	81·0	72·9	66·2
General equipment	49·2	130·0	119·9	109·0	100·0	85·9	78·0	84·3
Miscellaneous	9·4	125·1	113·4	105·5	100·0	92·1	89·1	85·0

Table 3.—Relative Importance of Industrial Groups, 1923-29

—	1929		1928		1927	
	Amount	P.C. of total	Amount	P.C. of total	Amount	P.C. of total
According to the value added by manufacture	$		$		$	
Vegetable products	344,437,941	18·4	317,073,457	18·6	283,374,975	18·5
Animal products	132,409,973	7·1	133,697,496	7·8	132,260,556	8·6
Textiles and textile products	205,943,337	11·0	191,671,848	11·2	183,137,300	11·9
Wood and paper	411,616,451	22·0	389,389,952	22·8	357,786,924	23·4
Iron and its products	353,087,320	18·8	300,014,925	17·6	264,819,160	17·3
Non-ferrous metals	158,645,034	8·5	139,220,908	8·2	112,757,295	7·4
Non-metallic minerals	124,874,388	6·6	112,398,268	6·6	89,433,536	5·8
Chemicals and allied products	83,360,884	4·4	72,812,503	4·2	63,854,084	4·2
Miscellaneous industries	60,091,591	3·2	50,439,849	3·0	44,466,809	2·9
Total[1]	1,874,466,919	100·0	1,706,719,206	100·0	1,531,890,639	100·0

—	1926		1925	
	Amount	P.C. of total	Amount	P.C. of total
According to the value added by manufacture	$		$	
Vegetable products	244,004,302	17·4	227,526,377	18·1
Animal products	122,920,658	8·8	115,863,479	9·2
Textiles and textile products	163,502,261	11·6	143,950,124	11·4
Wood and paper	339,062,685	24·2	310,642,862	24·7
Iron and its products	247,168,476	17·6	205,041,508	16·3
Non-ferrous metals	92,888,719	6·6	85,701,766	6·8
Non-metallic minerals	91,863,604	6·5	78,969,840	6·3
Chemicals and allied products	62,464,944	4·5	56,607,527	4·5
Miscellaneous industries	39,835,657	2·8	33,988,542	2·7
Total[1]	1,403,711,306	100·0	1,258,292,025	100·0

—	1924		1923	
	Amount	P.C. of total	Amount	P.C. of total
According to the value added by manufacture	$		$	
Vegetable products	220,330,748	19·0	209,884,136	17·2
Animal products	109,783,926	9·4	110,090,176	9·0
Textiles and textile products	141,803,602	12·2	157,993,769	13·0
Wood and paper	300,425,516	25·9	319,216,193	26·2
Iron and its products	174,107,327	15·0	209,541,556	17·2
Non-ferrous metals	50,968,079	4·4	45,424,062	3·7
Non-metallic minerals	76,832,578	6·6	74,673,276	6·1
Chemicals and allied products	53,905,324	4·6	56,606,094	4·6
Miscellaneous industries	33,317,033	2·9	36,454,817	3·0
Total[1]	1,161,474,133	100·0	1,219,884,079	100·0

[1] Exclusive of "Central Electric Stations."

Table 3.—Relative Importance of Industrial Groups, 1923-29—Concluded

	1929		1928		1927	
	Number	P.C. of total	Number	P.C. of total	Number	P.C. of total
According to the number of wage-earners employed						
Vegetable products	76,511	13·0	71,974	12·9	67,398	12·8
Animal products	57,009	9·7	57,005	10·2	57,361	10·9
Textiles and textile products	105,594	17·9	103,973	18·7	98,708	18·8
Wood and paper	143,558	24·4	138,053	24·8	132,105	25·2
Iron and its products	116,376	19·7	104,397	18·7	92,677	17·7
Non-ferrous metals	32,242	5·5	28,816	5·2	27,197	5·2
Non-metallic minerals	27,456	4·7	25,000	4·5	22,975	4·4
Chemicals and allied products	12,128	2·1	11,619	2·1	10,717	2·0
Miscellaneous industries	17,603	3·0	16,302	2·9	15,613	3·0
Total[1]	588,477	100·0	557,139	100·0	524,751	100·0

	1926		1925	
	Number	P.C. of total	Number	P.C. of total
According to the number of wage-earners employed				
Vegetable products	64,099	13·0	62,246	13·6
Animal products	56,944	11·6	53,457	11·6
Textiles and textile products	92,460	18·8	86,693	18·9
Wood and paper	116,225	23·6	110,662	24·1
Iron and its products	90,395	18·4	77,935	17·0
Non-ferrous metals	24,270	4·9	22,600	4·9
Non-metallic minerals	22,407	4·6	21,285	4·6
Chemicals and allied products	10,446	2·1	10,122	2·2
Miscellaneous industries	14,897	3·0	14,065	3·1
Total[1]	492,143	100·0	459,065	100·0

	1924		1923	
	Number	P.C. of total	Number	P.C. of total
According to the number of wage-earners employed				
Vegetable products	56,266	13·2	54,708	12·4
Animal products	47,679	11·2	50,947	11·5
Textiles and textile products	82,364	19·4	84,479	19·2
Wood and paper	109,879	25·9	110,983	25·2
Iron and its products	66,912	15·7	76,254	17·3
Non-ferrous metals	17,213	4·1	17,087	3·9
Non-metallic minerals	21,196	5·0	21,792	4·9
Chemicals and allied products	10,201	2·4	10,940	2·5
Miscellaneous industries	13,294	3·1	13,608	3·1
Total[1]	425,004	100·0	440,798	100·0

[1] Exclusive of "Central Electric Stations."

Table 4.—Representativeness of the Data Used in Index

Industry	Weight	Value of products included in index, 1926	Total value of production, 1926	Percentage of total products included in index
		$	$	
Vegetable Products	174·0	622,428,703	668,890,914	93·1
Milling industries	18·3	182,781,529	189,580,241	96·4
Malt and malt mills	1·3	3,825,533	3,943,101	97·0
Rice mills	0·1	1,713,227	1,751,812	97·8
Bread and other bakery products	21·5	50,724,185	62,920,009	80·6
Biscuits, confectionery, cocoa and chocolate	19·3	48,338,250	53,084,923	91·1
Miscellaneous food industries	3·2	[1]	8,925,132	
Starch, glucose, etc	1·3	4,813,593	4,988,860	96·5
Macaroni and vermicelli	0·4	1,493,403	1,560,510	95·7
Ice cream cones	0·2	424,958	425,059	100·0
Fruit and vegetable preparations	9·3	29,036,247	31,548,885	92·0
Coffee, tea and spices	2·3	22,247,237	24,755,718	89·9
Sugar refining	11·0	64,135,664	64,270,687	99·8
Maple syrup and sugar	0·1	493,543	493,626	100·0
Syrups	0·1	347,236	367,960	94·4
Breweries	20·8	42,734,031	43,602,960	98·0
Distilleries	6·1	11,852,477	12,216,906	97·0
Wine and grape juice	0·8	2,452,097	2,485,136	98·7
Rubber	26·1	79,641,384	86,508,137	92·1
Tobacco	30·3	65,154,033	65,183,761	100·0
Linseed oil and oilcake	0·8	6,486,924	6,486,924	100·0
Miscellaneous vegetable products	0·7	3,733,152	3,790,567	98·5
Animal Products	88·0	410,360,192	444,686,105	92·3
Slaughtering and meat packing	19·9	154,074,071	167,127,091	92·2
Butter and cheese	20·0	118,226,009	120,193,417	98·4
Fish curing and packing	10·1	21,614,053	28,841,944	74·9
Condensed milk	2·8	11,828,561	13,159,659	89·9
Sausage and sausage casings	0·5	1,828,758	2,130,606	85·8
Boots and shoes, leather	15·7	45,780,335	46,096,163	99·3
Fur goods	4·8	14,545,346	18,941,249	76·8
Gloves and mittens, leather	1·1	3,409,347	3,609,277	94·5
Fur dressing and dyeing	1·8	2,834,439	2,834,439	100·0
Boot and shoe findings	0·5	1,253,995	1,410,884	88·9
Leather, tanned, etc	6·4	25,935,378	27,747,605	93·5
Harness, saddlery, and miscellaneous leather goods	3·8	8,585,132	11,326,710	75·8
Animal hair goods	0·3	[1]	689,402	
Animal oils and fats	0·2	444,768	535,120	83·1
Human hair goods	0·1	[1]	42,539	
Textiles and Textile Products	116·0	198,460,265	366,334,644	54·2
Cotton yarn and cloth	22·9	66,045,886	76,274,257	86·6
Cotton thread	1·6	4,519,533	4,538,217	99·6
Batting and wadding	0·8	[1]	2,404,251	
Cotton and wool waste	0·4	1,537,658	2,390,198	64·3
Cotton textiles, n.e.s.	0·4	[2]	1,524,106	73·3
Miscellaneous textiles, n.e.s.	0·4	[1]	2,691,529	
Woollen cloth	4·9	12,924,085	15,503,083	83·4
Woollen yarns	2·1	6,322,137	7,006,877	90·2
Carpets, mats and rugs	1·2	2,732,918	3,152,800	86·7

[1] Physical units not available. Number of wage-earners employed used as the basis of computing the index.

[2] Physical units not available. Value of raw materials consumed used as the basis of computing the index.

Table 4.—Representativeness of the Data Used in Index—Continued

Industry	Weight	Value of products included in index, 1926	Total value of production, 1926	Percentage of total products included in index
		$	$	
Textiles and Textile Products—*Con.*				
Woollen goods, n.e.s.	2·0	3,936,006	5,738,462	68·6
Hosiery, knit goods and fabric gloves	17·2	51,120,571	53,675,759	95·2
Clothing, women's factory	15·6	[1]	50,658,319	
Clothing, men's factory	14·0	[1]	41,784,131	
Furnishing goods, men's	7·2	[1]	26,394,517	
Hats and caps	4·9	13,145,707	13,671,126	96·2
Silk goods	3·6	7,185,932	8,507,153	84·5
Corsets	1·3	3,911,483	4,048,926	96·6
Oiled and waterproof clothing	0·4	[1]	1,157,182	
Cotton and jute bags	1·3	13,861,381	14,072,099	98·5
Cordage, rope and twine	2·0	10,568,253	10,574,682	100·0
Awnings, tents and sails	0·6	[2]	2,232,440	73·1
Linen goods	0·1	505,807	515,935	98·0
Flax, dressed	0·1	142,908	176,327	81·0
Dyeing, cleaning and laundry work	11·0	[1]	17,642,268	
Wood and Paper Products	242·0	425,806,361	656,610,634	64·8
Pulp and paper	92·6	272,202,911	273,431,277	99·6
Saw mills	40·1	131,639,338	135,182,592	97·4
Printing and publishing	30·9	[2]	57,042,223	86·8
Printing and bookbinding	15·8	[2]	32,536,389	76·4
Paper boxes and bags	5·6	[2]	15,528,882	63·4
Lithographing and engraving	7·3	[1]	15,098,534	
Stationery and envelopes	1·8	3,840,701	5,722,843	67·1
Roofing paper, wall board, etc	1·5	4,558,184	4,774,528	95·5
Wall paper	1·3	3,005,003	3,005,003	100·0
Stereotyping and electroplating	0·7	[1]	1,078,667	
Blueprinting	0·1	[1]	211,151	
Paper goods, n.e.s.	1·8	3,947,898	5,519,366	71·5
Sash, door and planing mills	14·7	[2]	43,426,403	90·2
Furniture	14·2	[2]	31,293,442	42·6
Boxes, baskets and crates	3·6	[2]	9,763,360	90·5
Carriages, wagons and sleighs	2·9	2,180,756	5,418,506	40·2
Cooperage	0·6	1,047,988	1,463,312	71·6
Coffins and caskets	0·9	2,032,224	2,423,087	83·9
Sporting goods	0·4	[1]	1,434,337	
Boatbuilding	0·8	1,210,151	1,576,276	76·9
Lasts, trees and shoe findings	0·4	[1]	761,822	
Handles, spools and wood-turning	0·5	[1]	1,172,026	
Carriage and wagon materials	0·4	[1]	1,100,200	
Woodenware	0·3	[2]	552,277	72·7
Clothes pins	0·1	[2]	179,615	88·5
Excelsior	0·1	141,207	228,750	61·7
Beekeepers' and poultrymen's supplies	0·1	[1]	45,359	
Miscellaneous wood using industries	1·7	[1]	3,710,853	
All other wood and paper industries	0·8	[1]	2,929,554	
Iron and Its Products	176·0	375,546,401	567,950,501	66·1
Pig iron, steel ingots, and rolled iron and steel products	15·1	94,124,699	97,345,919	96·7
Castings and forgings	30·6	41,249,784	70,235,798	58·7
Boilers, tanks and engines	2·0	2,179,262	5,343,208	40·8

[1] Physical units not available. Number of wage-earners employed used as the basis of computing the index.

[2] Physical units not available. Value of raw materials consumed used as the basis of computing the index.

Table 4.—Representativeness of the Data Used in Index—Continued

Industry	Weight	Value of products included in index, 1926	Total value of production, 1926	Percentage of total products included in index
		$	$	
Iron and Its Products—*Con.*				
Agricultural implements	14·2	24,132,476	38,269,214	63·1
Machinery	17·8	[1]	38,380,019	
Automobiles	31·5	122,629,537	133,598,456	91·8
Automobile parts and accessories	4·4	6,659,877	13,914,965	47·9
Bicycles	0·5	636,785	1,453,658	43·8
Railway rolling stock	24·7	58,774,059	72,706,052	80·8
Wire and wire goods	6·6	19,901,340	23,846,732	83·5
Sheet metal products	13·0	[1]	39,077,034	
Hardware and tools	11·1	[1]	22,829,695	
Miscellaneous iron and steel products	4·5	5,258,582	10,949,751	48·0
Non-Ferrous Metal Products	66·0	35,285,009	183,501,723	19·2
Aluminium products	1·0	[2]	1,917,810	89·4
Brass and copper products	7·0	[2]	22,028,636	84·1
Electrical apparatus and supplies	28·0	30,991,779	69,767,308	44·4
Lead, tin and zinc products	1·0	4,293,230	5,184,096	82·8
Miscellaneous non-ferrous metal products	1·0	[1]	998,512	
Non-ferrous metal smelting and refining	24·0	[2]	72,853,566	100·0
Precious metal products	4·0	[1]	10,751,795	
Non-Metallic Mineral Products	65·0	132,680,111	174,156,923	76·2
Aerated waters	3·1	[1]	7,406,504	
Asbestos and allied products	0·5	[2]	1,530,094	57·6
Cement	9·2	13,013,283	13,013,283	100·0
Cement products	1·2	[2]	2,544,242	91·3
Clay products, domestic	7·3	9,909,285	10,357,323	95·7
Clay products, imported	1·1	[1]	2,039,514	
Gas and coke	12·4	32,432,485	33,526,334	96·7
Glass products	4·8	[1]	11,670,269	
Lime	2·7	3,781,484	3,781,484	100·0
Miscellaneous non-metallic products	4·0	5,465,185	8,612,658	63·5
Petroleum products	14·2	65,991,831	71,196,311	92·7
Salt	1·4	1,480,149	2,049,545	72·2
Sand-lime brick	0·3	606,409	629,672	96·3
Stone, ornamental and monumental	2·8	[1]	5,799,690	
Chemicals and Allied Products	45·0	75,375,633	122,589,526	61·5
Acids, alkalies, salts and compressed gases	12·1	27,537,464	30,232,322	91·1
Coal tar products	0·9	2,256,067	3,088,053	73·1
Explosives, ammunition, fireworks and matches	3·8	7,746,889	12,155,220	63·7
Fertilizers	0·3	1,235,415	1,449,589	85·2
Inks, dyes and colours	1·3	1,554,415	2,819,945	55·1
Medicinal and pharmaceutical preparations	7·1	[1]	15,382,475	
Miscellaneous chemical industries	4·6	[1]	11,851,164	
Paints, pigments and varnishes	8·4	20,981,970	24,803,237	84·6
Soaps, washing compounds and toilet preparations	5·8	12,597,694	19,072,528	66·1
Wood distillates and extracts	0·7	1,465,719	1,734,993	84·5

[1] Physical units not available. Number of wage-earners employed used as the basis of computing the index.

[2] Physical units not available. Value of raw materials consumed used as the basis of computing the index.

Table 4.—Representativeness of the Data Used in Index—Concluded

Industry	Weight	Value of products included in index, 1926	Total value of production, 1926	Percentage of total products included in index
		$	$	
Miscellaneous Industries	28·0	36,505,581	70,143,531	52·0
Advertising and other novelties	0·1	[1]	163,098	
Artificial feathers and flowers	0·2	[1]	417,043	
Bridge building	5·2	[2]	16,036,983	85·8
Brooms, brushes and mops	1·6	3,679,910	4,016,674	91·6
Buttons	0·5	813,920	1,088,953	74·7
Candles and tapers	0·1	369,385	378,045	97·8
Fountain pens	0·5	936,685	1,083,437	86·5
Ice, artificial	0·8	1,118,093	1,309,779	85·4
Jewel cases and silverware cabinets	0·1	[1]	159,433	
Mattresses and springs	2·8	7,324,469	8,139,570	90·0
Motion pictures	0·1	273,765	273,765	100·0
Musical instruments and materials	4·4	9,613,694	10,873,293	88·4
Refrigerators	0·4	764,092	993,201	76·9
Regalia and society emblems	0·1	[1]	248,054	
Scientific and professional equipment	3·4	[1]	8,576,590	
Shipbuilding and repairs	6·3	9,865,660	12,965,633	76·9
Rubber stamps and stencils	0·3	[1]	504,736	
Statuary, art goods and church supplies	0·3	[1]	742,573	
Store and display fixtures	0·1	[1]	290,063	
Toys and games	0·2	399,847	478,717	83·5
Typewriter supplies	0·2	491,004	514,767	95·4
Umbrellas and parasols	0·2	752,538	773,011	97·4
All other industries	0·1	102,519	116,113	88·3

[1] Physical units not available. Number of wage-earners employed used as the basis of computing the index.

[2] Physical units not available. Value of raw materials consumed used as the basis of computing the index.

Table 5.—Number of Wage-earners Employed in Each Industry and Percentage Variation, 1923-29

1926 = 100

Industry	Number of wage-earners							Percentage variation						
	1929	1928	1927	1926	1925	1924	1923	1929	1928	1927	1926	1925	1924	1923
All Industries[3]	588,477	557,139	524,751	492,143	459,065	425,004	440,798	119·6	113·2	106·6	100·0	93·3	86·4	89·6
Vegetable Products	76,511	71,974	67,398	64,099	62,246	56,266	54,708	119·4	112·3	105·1	100·0	97·1	87·8	85·3
Milling industries	5,408	5,435	5,259	5,200	5,002	5,393	5,500	104·0	104·5	101·1	100·0	96·2	103·7	105·8
Malt and malt mills	166	167	124	141	141	109	142	117·7	118·4	87·9	100·0	100·0	77·3	100·7
Rice mills	40	46	51	49	40	41	47	81·6	93·9	104·1	100·0	81·6	83·7	95·9
Bread and other bakery products	15,749	14,441	13,568	12,601	11,656	10,907	9,507	125·0	114·6	107·7	100·0	92·5	86·6	75·4
Biscuits, confectionery, cocoa and chocolate	10,726	10,767	10,883	10,596	10,468	10,364	11,186	101·2	101·6	102·7	100·0	98·8	99·7	105·6
Miscellaneous food industries	878	806	749	712	629	557	567	123·3	112·4	105·2	100·0	88·3	78·2	79·6
Starch, glucose, etc.	433	437	434	446	450	488	495	97·1	98·0	97·3	100·0	100·9	109·4	111·0
Macaroni and vermicelli	235	236	251	254	209	199	187	92·5	92·9	98·8	100·0	82·3	78·3	73·6
Ice cream cones	87	96	86	68	61	56	49	127·9	132·1	126·5	100·0	89·7	82·4	72·1
Fruit and vegetable preparations[3]	9,885	8,133	7,093	7,225	7,765	4,776	3,675	136·8	112·6	98·2	100·0	107·5	66·2	50·9
Coffee, tea and spices[4]	1,120	1,096	1,068	705	660	691	690	158·9	155·5	151·5	100·0	93·6	98·0	97·9
Sugar refining	2,018	2,082	2,365	2,564	2,428	2,052	2,045	78·7	81·2	92·2	100·0	94·7	80·0	79·8
Maple syrup and sugar	52	32	35	29	20	19	21	179·3	110·3	120·7	100·0	69·0	65·5	72·4
Syrups	38	29	40	39	49	44	31	97·4	71·4	102·6	100·0	125·6	112·8	79·5
Breweries	3,955	4,050	3,807	3,315	3,410	3,214	2,563	119·3	122·2	114·8	100·0	102·9	97·0	77·3
Distilleries	1,858	1,571	1,145	879	701	721	327	211·4	178·7	130·0	100·0	80·1	82·0	37·2
Wine and grape juice	329	224	179	142	111	99	100	231·7	157·7	126·1	100·0	78·2	69·7	70·4
Rubber	15,537	14,950	13,165	11,801	11,305	9,003	9,897	131·7	126·7	111·6	100·0	95·8	76·3	83·9
Tobacco	7,685	7,094	6,705	7,023	6,834	7,017	7,319	109·4	101·0	95·5	100·0	97·3	99·9	104·2
Linseed oil and oil cake	203	198	206	194	176	179	209	104·6	102·1	106·2	100·0	90·7	92·3	107·7
Miscellaneous vegetable products	109	96	187	116	128	137	151	94·0	82·8	161·2	100·0	110·3	118·1	130·2
Animal Products	57,609	57,005	57,361	56,944	53,457	47,679	50,947	100·1	100·1	100·7	100·0	93·9	83·7	89·5
Slaughtering and meat packing	8,265	8,567	8,203	7,844	8,260	7,490	7,251	105·3	109·2	104·6	100·0	104·5	95·5	92·5
Butter and cheese	7,690	7,298	6,820	6,906	6,447	6,021	5,483	111·4	105·7	98·8	100·0	93·4	87·2	79·4
Fish curing and packing	15,707	14,804	16,058	16,862	15,640	10,583	14,862	93·2	87·8	95·2	100·0	92·8	62·8	88·1
Condensed milk	640	671	671	682	640	686	673	93·8	98·4	98·4	100·0	93·8	100·6	98·7
Sausage and sausage casings	220	205	206	210	184	180	122	104·8	97·6	98·1	100·0	86·2	85·7	58·6
Boots and shoes, leather	14,240	14,135	14,092	13,676	12,550	12,921	12,439	104·1	103·4	103·0	100·0	91·8	94·5	91·0

Table 5.—Number of Wage-earners Employed in Each Industry and Percentage Variation, 1923-29 Continued

1926 = 100

Industry	Number of wage-earners							Percentage variation						
	1929	1928	1927	1926	1925	1924	1923	1929	1928	1927	1926	1925	1924	1923
Animal Products—*Con.*														
Fur goods	2,439	2,436	2,539	2,389	2,006	1,988	1,989	102·1	102·0	106·3	100·0	82·3	83·2	83·3
Gloves and mittens, leather	1,496	1,504	1,374	1,172	1,129	1,107	1,361	127·6	128·3	117·2	100·0	96·3	94·5	116·1
Fur dressing and dyeing	652	731	734	705	546	504	491	92·5	103·7	104·1	100·0	77·4	71·5	69·7
Boot and shoe findings	306	330	324	317	279	299	308	96·5	104·1	102·2	100·0	88·0	94·3	97·2
Leather, tanned, etc	3,019	3,666	3,781	3,606	3,523	3,582	3,449	83·7	101·5	104·9	100·0	97·7	99·3	95·6
Harness, saddlery and miscellaneous leather goods	2,108	2,453	2,347	2,356	2,105	2,105	2,299	89·5	104·1	99·6	100·0	89·3	89·3	97·6
Animal hair goods	103	90	92	98	93	97	111	105·1	91·8	93·9	100·0	94·9	99·0	113·3
Animal oils and fats	113	108	101	100	97	92	90	113·0	108·0	101·0	100·0	97·0	92·0	90·0
Human hair goods	13	13	19	21	21	24	18	61·9	61·9	90·5	100·0	100·0	114·3	85·7
Textiles and Textile Products	105,594	103,973	98,708	92,460	86,695	82,364	84,479	114·2	112·7	106·8	100·0	93·8	89·1	91·4
Cotton yarn and cloth	19,526	20,895	20,754	19,752	19,986	17,841	18,736	98·9	105·8	105·1	100·0	101·2	90·3	94·9
Cotton thread	678	659	685	673	623	634	664	100·7	97·9	101·8	100·0	92·6	94·2	98·7
Batting and wadding	230	237	258	245	191	179	85	93·9	96·7	105·3	100·0	78·0	73·1	
Cotton and wool waste	235	283	244	236	241	239	121	99·6	119·9	103·4	100·0	102·1	101·3	79·6
Cotton textiles, n.e.s.	431	402	344	281	232	246	48	153·4	143·1	122·4	100·0	82·6	85·4	
Miscellaneous textiles, n.e.s.	286	278	281	290	274	214	493	98·6	95·9	96·9	100·0	94·5	73·8	
Woollen cloth	3,837	3,739	3,965	4,361	4,160	4,407	4,956	88·0	85·5	90·9	100·0	95·5	101·1	113·6
Woollen yarns	1,758	1,812	1,584	1,376	1,382	1,558	1,396	127·8	131·7	115·1	100·0	100·4	113·2	101·5
Carpets, mats and rugs	1,079	921	805	693	711	634	945	155·7	132·9	116·2	100·0	102·6	91·5	136·4
Woollen goods, n.e.s.	1,037	1,114	1,007	993	983	924	967	104·4	112·2	101·4	100·0	99·0	93·1	97·4
Hosiery, knit goods and fabric gloves	18,347	16,763	16,159	15,454	13,692	12,904	13,602	118·7	108·5	104·6	100·0	88·6	83·5	88·0
Clothing, womens' factory	15,069	14,520	13,894	12,431	11,911	11,501	11,442	121·2	116·8	111·8	100·0	95·8	92·5	92·0
Clothing, mens' factory	10,086	10,435	10,121	9,789	9,530	9,681	8,617	103·0	106·6	103·4	100·0	97·4	98·9	88·0
Furnishing goods, men's	8,998	9,075	8,176	7,595	6,433	6,052	6,697	119·9	120·5	108·9	100·0	85·7	80·6	89·2
Hats and caps	4,083	4,298	4,243	3,675	3,355	2,816	2,580	111·2	117·0	115·5	100·0	91·3	76·5	70·2
Silk goods	4,015	3,594	2,684	2,231	1,561	1,107	1,135	180·0	161·1	120·3	100·0	70·0	49·6	50·9
Corsets	1,085	1,072	959	1,019	1,089	1,028	1,237	106·5	105·2	94·1	100·0	106·9	100·9	121·4
Oiled and waterproof clothing	279	301	310	194	178	186	152	143·8	155·2	159·8	100·0	91·8	95·9	78·4
Cotton and jute bags	935	947	925	877	883	901	822	106·6	108·0	105·5	100·0	100·7	102·7	93·7
Cordage, rope and twine	1,246	1,223	1,334	1,397	1,139	1,281	1,225	89·2	87·5	95·5	100·0	81·5	91·7	87·7

Awnings, tents and sails	449	450	406	332	329	329	363	135·2	135·5	122·3	100·0	99·1	99·1	109·3
Linen goods	171	183	214	205	194	172	227	83·4	89·3	104·4	100·0	94·6	83·9	110·7
Flax, dressed	105	128	146	134	194	131	[1]	78·4	95·5	109·0	100·0	144·8	97·8	
Dyeing, cleaning and laundry work	11,629	10,653	9,210	8,319	7,416	7,414	7,969	139·8	128·1	110·7	100·0	89·1	89·1	95·8
Wood and Paper Products	143,558	138,053	132,105	116,225	110,662	109,879	110,983	123·5	118·8	113·7	100·0	95·2	94·5	95·5
Pulp and paper	30,464	30,107	29,702	28,180	25,060	24,634	26,414	108·1	106·8	105·4	100·0	88·9	87·4	93·7
Saw mills	44,580	42,964	42,655	33,144	33,409	33,323	32,868	134·5	129·6	128·7	100·0	100·8	100·5	99·2
Printing and publishing	10,190	9,905	9,281	8,905	8,827	8,568	8,472	114·4	111·2	104·2	100·0	89·1	86·5	85·5
Printing and bookbinding	10,248	9,761	9,148	8,167	8,189	8,393	8,221	125·5	119·5	112·0	100·0	100·3	102·8	100·7
Paper boxes and bags	4,762	4,461	4,135	3,759	3,438	3,400	3,047	126·7	118·7	110·0	100·0	91·5	90·4	81·1
Lithographing and engraving	4,586	4,296	4,055	3,588	3,329	2,714	2,603	127·8	119·7	113·0	100·0	92·8	75·6	72·5
Stationery and envelopes	1,181	1,064	988	1,011	891	802	1,099	116·8	105·2	97·7	100·0	88·1	79·3	108·7
Roofing paper, wall board, etc	343	301	308	301	297	321	507	114·0	100·0	102·3	100·0	98·7	106·6	168·4
Wall paper	496	475	498	486	471	478	453	102·1	97·7	102·5	100·0	96·9	98·4	93·2
Stereotyping and electroplating	316	264	263	242	244	175	180	130·6	109·1	108·7	100·0	100·8	72·3	74·4
Blueprinting	74	68	69	55	49	48	46	134·5	123·6	125·5	100·0	89·1	87·3	83·6
Paper goods, n.e.s.	892	821	771	518	511	459	433	172·2	158·5	148·8	100·0	98·6	88·6	83·6
Sash, door and planing mills	11,586	10,784	10,222	9,413	8,947	9,238	8,750	123·1	114·6	108·6	100·0	95·0	98·1	93·0
Furniture	11,889	11,331	9,961	8,809	8,047	8,028	7,974	135·0	128·6	113·1	100·0	91·3	91·1	90·5
Boxes, baskets and crates	3,293	3,374	3,074	3,286	3,187	3,104	3,063	100·2	102·7	93·5	100·0	97·0	94·5	93·2
Carriages, waggons and sleighs	2,130	2,199	1,780	1,842	1,554	1,914	2,099	115·6	119·4	96·6	100·0	84·4	103·9	114·0
Cooperage	572	557	505	484	613	584	506	118·2	115·1	104·3	100·0	126·7	120·7	104·5
Coffins and caskets	679	627	586	568	525	557	601	119·5	110·4	103·2	100·0	92·4	98·1	105·8
Sporting goods	449	426	379	373	318	358	538	120·4	114·2	101·6	100·0	85·3	96·0	144·2
Boatbuilding	828	716	612	541	445	437	474	153·0	132·3	113·1	100·0	82·3	80·8	87·6
Lasts, trees and shoe findings	501	470	482	308	264	261	255	162·7	152·6	156·5	100·0	85·7	84·7	82·8
Handles, spools and wood-turning	600	547	505	467	436	402	398	128·5	117·1	108·1	100·0	93·4	86·1	85·2
Carriage and waggon materials	128	144	174	195	187	231	241	65·6	73·8	89·2	100·0	95·9	118·5	123·6
Woodenware	424	443	285	249	234	278	354	170·3	177·9	114·5	100·0	94·0	111·6	142·2
Clothes pins	205	201	205	187	180	155	133	109·6	167·5	109·6	100·0	96·3	82·9	71·1
Excelsior	105	87	108	96	49	58	[6]	109·4	90·6	112·5	100·0	51·0	60·4	
Beekeepers' and poultrymens' supplies	19	15	12	10	4	6	[6]	190·0	150·0	120·0	100·0	40·0	60·0	109·2
Miscellaneous wood using industries	1,177	1,074	935	733	622	738	[6]	160·6	146·5	127·6	100·0	84·9	100·7	
All other wood and paper industries	841	571	407	308	335	215	1,254	273·1	185·4	132·1	100·0	108·8	69·8	
Iron and Its Products	116,376	104,397	92,677	90,395	77,935	66,912	76,254	128·7	115·5	102·5	100·0	86·2	74·0	84·4
Pig iron, steel ingots and rolled iron and steel products	10,506	8,443	6,867	5,637	4,699	4,926	5,706	186·4	149·8	121·8	100·0	83·4	87·4	101·2
Castings and forgings	20,796	18,452	16,868	16,816	14,904	14,647	16,701	123·7	109·7	100·3	100·0	88·6	87·1	99·3
Boilers, tanks and engines	1,792	1,434	1,371	1,257	1,085	991	1,156	142·6	114·1	109·1	100·0	86·3	78·8	92·0
Agricultural implements	9,643	9,208	9,493	8,563	6,206	5,412	6,439	112·6	107·5	110·9	100·0	72·5	63·2	75·2
Machinery	9,999	8,594	7,960	7,639	6,561	6,310	6,595	130·9	112·5	104·2	100·0	85·9	82·6	86·3
Automobiles	14,145	14,313	8,946	10,250	8,705	7,888	7,825	138·0	139·6	87·3	100·0	84·9	77·0	76·3

Table 5.—Number of Wage-earners Employed in Each Industry and Percentage Variation, 1923-29—Continued

1926 = 100

Industry	Number of wage-earners							Percentage variation						
	1929	1928	1927	1926	1925	1924	1923	1929	1928	1927	1926	1925	1924	1923
Iron and Its Products—*Con.*														
Automobile parts and accessories	4,178	3,100	2,619	2,401	1,745	2,283	3,317	174·0	129·1	109·1	100·0	72·7	95·1	138·2
Bicycles	425	389	353	443	453	407	439	95·9	87·8	79·7	100·0	102·3	91·9	99·1
Railway rolling stock	23,858	20,934	20,041	20,663	18,655	9,809	12,400	115·5	101·3	97·0	100·0	90·3	47·5	60·0
Wire and wire goods	3,721	3,028	2,788	2,784	2,610	2,509	2,926	133·7	108·8	100·1	100·0	93·8	90·1	105·1
Sheet metal products	7,949	7,484	7,059	6,309	5,664	5,252	5,355	126·0	118·6	111·9	100·0	89·8	83·2	84·9
Hardware and tools	6,376	5,921	5,818	5,527	4,799	4,508	5,251	115·4	107·1	105·3	100·0	86·8	81·6	95·0
Miscellaneous iron and steel products	2,988	3,097	2,494	2,106	1,849	1,970	2,144	141·9	147·1	118·4	100·0	87·8	93·5	101·8
Non-Ferrous Metal Products	32,242	28,816	27,197	24,270	22,600	17,213	17,087	132·8	118·7	112·1	100·0	93·1	70·9	70·4
Aluminium products	640	540	418	368	1,059	994	901	173·9	146·7	113·6	100·0	287·8	270·1	244·8
Brass and copper products	5,127	4,482	3,975	3,726	3,305	3,103	3,385	137·6	120·3	106·7	100·0	88·7	83·3	90·8
Electrical apparatus and supplies	15,916	13,850	12,791	11,637	10,912	10,630	10,412	136·8	119·0	109·9	100·0	93·8	91·3	89·5
Lead, tin and zinc products	594	502	470	472	402	363	129	125·8	106·4	99·6	100·0	85·2	76·9	27·3
Miscellaneous non-ferrous metal products	184	181	193	181	187	160	154	101·7	100·0	106·6	100·0	103·3	88·4	85·1
Non-ferrous metal smelting and refining	7,435	6,841	7,027	5,591	4,667	[1]	[1]	133·0	122·4	125·7	100·0	83·5		
Precious metal products	2,346	2,420	2,323	2,295	2,068	1,963	2,106	102·2	105·4	101·2	100·0	90·1	85·5	91·8
Non-Metallic Mineral Products	27,456	25,000	22,975	22,407	21,285	21,196	21,792	122·5	111·6	102·5	100·0	95·0	94·6	97·3
Aerated waters	1,637	1,450	1,308	1,242	1,302	1,167	1,303	131·8	116·7	105·3	100·0	104·8	94·0	104·9
Asbestos and allied products	286	279	245	213	196	185	98	134·3	131·0	115·0	100·0	92·0	86·9	46·0
Cement	2,422	2,285	2,145	2,216	1,821	1,740	2,080	109·3	103·1	96·8	100·0	82·2	78·5	69·6
Cement products	1,153	1,104	744	772	729	400		149·4	143·0	96·4	100·0	94·4	51·8	
Clay products, domestic clay	5,115	4,826	4,416	4,066	3,826	3,689	4,345	125·8	118·7	108·6	100·0	94·1	90·7	94·7
Clay products, imported clay	781	616	564	524	487	439		149·0	117·6	107·6	100·0	92·9	83·8	
Gas and coke	3,013	3,031	3,107	3,222	3,491	3,358	2,726	93·5	94·1	96·4	100·0	108·3	104·2	84·6
Glass products	3,567	2,932	2,830	2,744	2,501	2,893	3,071	130·0	106·9	103·1	100·0	91·1	105·4	111·9
Lime	1,273	1,118	1,035	1,017	917	836	1,103	125·2	109·9	101·8	100·0	90·2	82·2	108·5
Miscellaneous non-metallic products[2]	1,551	1,468	1,425	1,388	1,159	1,611	1,685	111·7	105·8	102·7	100·0	83·5	116·1	121·4
Petroleum products	4,468	3,845	3,337	3,235	3,274	3,221	3,806	138·1	118·9	103·2	100·0	101·2	99·6	117·7
Salt	371	394	322	333	345	313	316	111·4	118·3	96·7	100·0	103·6	94·0	94·9
Sand-lime brick	279	258	230	197	189	209	205	141·6	131·0	116·8	100·0	95·9	106·1	104·1
Stone, ornamental and monumental	1,540	1,394	1,267	1,238	1,048	1,135	1,054	124·4	112·6	102·3	100·0	84·7	91·7	85·1

Chemicals and Allied Products	12,128	11,619	10,717	10,446	10,122	10,201	10,940	116·1	111·2	102·6	100·0	96·9	97·7	104·7
Acids, alkalies, salts and compressed gases	2,767	2,340	1,779	1,907	1,873	1,921	2,268	145·1	122·7	93·3	100·0	98·2	100·7	118·9
Coal tar products	211	201	177	141	147	170	194	149·6	142·6	125·5	100·0	104·3	120·6	137·6
Explosives, ammunition, fireworks and matches	1,315[9]	1,843	1,776	1,764	1,856	1,953	2,031	74·5[9]	104·5	100·7	100·0	105·2	110·7	115·1
Fertilizers	204	209	191	175	155	115	231	116·6	119·4	109·1	100·0	88·6	65·7	132·0
Inks, dyes and colours	401	284	303	297	271	263	273	135·0	95·6	102·0	100·0	91·2	88·6	91·9
Medicinal and pharmaceutical preparations	1,835	1,733	1,742	1,604	1,509	1,532	1,461	114·4	108·0	108·6	100·0	94·1	95·5	91·1
Miscellaneous chemical industries	1,645[9]	1,321	1,231	1,192	1,037	1,088	1,065	138·0[8]	110·8	103·3	100·0	87·0	91·3	89·3
Paints, pigments and varnishes	1,942	1,883	1,760	1,657	1,560	1,513	1,663	117·2	113·6	106·2	100·0	94·1	91·3	100·4
Soaps, washing compounds and toilet preparations	1,579	1,602	1,485	1,472	1,428	1,303	1,436	107·3	108·8	100·8	100·0	97·0	88·5	97·6
Wood distillates and extracts	229	203	273	237	286	343	318	96·6	85·7	115·2	100·0	120·7	144·7	134·2
Miscellaneous Industries	17,603	16,302	15,613	14,897	14,065	13,294	13,608[8]	118·2	109·4	104·8	100·0	94·4	89·2	91·3
Advertising and other novelties	142	106	65	54	45	64	54	263·0	196·3	120·4	100·0	83·3	118·5	100·0
Artificial feathers and flowers	87	115	127	138	147	137	152	63·0	83·3	92·0	100·0	106·5	99·3	110·1
Bridge building	3,949	3,155	2,596	2,251	1,520	1,574	1,010	175·4	140·2	115·3	100·0	67·5	70·6	44·9
Brooms, brushes and mops	1,222	1,147	1,121	1,070	1,092	1,103	1,093	114·2	107·2	104·8	100·0	102·1	103·1	102·1
Buttons	402	407	419	489	481	438	438	82·2	83·2	85·7	100·0	98·4	89·6	89·6
Candles and tapers	64	58	53	57	52	55	37	112·3	101·8	93·0	100·0	91·2	96·5	64·9
Fountain pens	262	221	193	138	140	156	173	189·9	160·1	139·9	100·0	101·4	113·0	125·4
Ice, artificial	253	244	239	235	256	263	185	107·7	103·8	101·7	100·0	108·9	111·9	78·7
Jewel cases and silverware cabinets	116	84	71	51	84	57	61	227·5	164·7	139·2	100·0	164·7	111·8	119·6
Mattresses and springs	1,638	1,550	1,319	1,186	1,090	1,078	1,179	138·1	130·7	111·2	100·0	91·9	90·9	99·4
Motion pictures	87	102	76	47	[1]	[1]	[1]	185·1	217·0	161·7	100·0			
Musical instruments and materials	2,379	2,641	2,862	2,868	2,445	2,489	2,734	82·9	92·1	99·8	100·0	85·3	86·8	95·3
Refrigerators	255	291	223	244	229	336	471	104·5	119·3	91·4	100·0	93·9	137·7	193·0
Regalia and society emblems	65	67	67	66	54	55	52	98·5	101·5	101·5	100·0	81·8	83·3	78·8
Scientific and professional equipment	749	688	893	852	746	872	986	87·9	80·8	104·8	100·0	87·6	102·3	115·7
Shipbuilding and repairs	4,889	4,337	4,300	4,316	4,835	3,832	3,513	113·3	100·5	99·6	100·0	112·0	88·8	81·4
Rubber stamps and stencils	204	200	196	164	163	161	170	124·4	122·0	119·5	100·0	99·4	98·2	103·7
Statuary, art goods and church supplies	360	423	376	235	277	226	221	153·2	180·0	160·0	100·0	117·9	96·2	94·0
Store and display fixtures	87	83	87	90	88	69	[7]	96·7	92·2	96·7	100·0	97·8	76·7	
Toys and games	122	118	98	119	104	137	[7]	102·5	99·2	82·4	100·0	87·4	115·1	
Typewriter supplies	66	56	51	50	49	46	42	132·0	112·0	102·0	100·0	98·0	92·0	84·0
Umbrellas and parasols	176	181	158	147	135	114	95	119·7	123·1	107·5	100·0	91·8	77·6	64·6
All other industries	29	28	23	30	33	32	102	96·7	93·3	76·7	100·0	110·0	106·7	340·0

Table 5.—Number of Wage-earners Employed in Each Industry and Percentage Variation, 1923-29 Concluded

1926=100

Industry	Number of wage-earners							Percentage variation						
	1929	1928	1927	1926	1925	1924	1923	1929	1928	1927	1926	1925	1924	1923
Recapitulation														
All industries	588,477	557,139	524,751	492,143	459,065	425,004	440,798	119·6	113·2	106·6	100·0	93·3	86·4	89·6
Vegetable products	76,511	71,974	67,398	64,099	62,246	56,266	54,708	119·4	112·3	105·1	100·0	97·1	87·8	85·3
Animal products	57,009	57,005	57,361	56,944	53,457	47,679	50,947	100·1	100·1	100·7	100·0	93·9	83·7	89·5
Textiles and textile products	105,594	103,973	98,708	92,460	86,693	82,364	84,479	114·2	112·5	106·8	100·0	93·8	89·1	91·4
Wood and paper products	143,558	138,053	132,105	116,225	110,662	109,879	110,983	123·5	118·8	113·7	100·0	95·2	94·5	95·5
Iron and its products	116,376	104,397	92,677	90,395	77,935	66,912	76,254	128·7	115·5	102·5	100·0	86·2	74·0	84·4
Non-ferrous metal products	32,242	28,816	27,197	24,270	22,600	17,213	17,087	132·8	118·7	112·1	100·0	93·1	70·9	70·4
Non-metallic mineral products	27,456	25,000	22,975	22,407	21,285	21,196	21,792	122·5	111·6	102·5	100·0	95·0	94·6	97·3
Chemicals and allied products	12,128	11,619	10,717	10,446	10,122	10,201	10,940	116·1	111·2	102·6	100·0	96·9	97·7	104·7
Miscellaneous industries	17,603	16,302	15,613	14,897	14,065	13,294	13,608[8]	118·2	109·4	104·8	100·0	94·4	89·2	91·3

[1] Statistics not available.
[2] Includes "abrasives" which has been separated in 1928.
[3] Exclusive of "central electric stations."
[4] The large increase in the number of wage-earners since 1927 is due to the inclusion under this classification of firms engaged solely in blending and packing of tea which were not compiled previously.
[5] The increase in the number of wage-earners since 1925 is due mainly to the change in method adopted in calculating the average employment.
[6] Included with " All other wood and paper industries."
[7] Included with "all other industries."
[8] Includes 840 wage-earners in the "signs" industry, now discontinued.
[9] Matches included with "Miscellaneous Chemical Industries" since 1929.

Table 6. Number of Wage-earners Employed in Each Province, 1923-29

1926 = 100

	Number of wage-earners						
	1929	1928	1927	1926	1925	1924	1923
Canada	588,477	557,139	524,751	492,143	459,065	425,004	440,798
Prince Edward Island	1,904	1,833	2,021	2,044	2,112	2,069	2,515
Nova Scotia	18,825	17,106	15,936	14,916	14,742	14,325	15,325
New Brunswick	16,613	16,124	17,193	15,956	15,481	14,092	14,442
Quebec	184,311	177,171	170,144	156,585	145,469	139,300	140,916
Ontario	284,583	267,797	246,636	232,713	216,819	207,227	216,243
Manitoba	21,055	20,253	18,551	17,102	16,043	10,958	11,220
Saskatchewan	5,628	4,387	3,983	3,412	3,000	2,792	2,798
Alberta	10,949	10,112	8,739	7,760	7,066	5,979	6,578
British Columbia and Yukon	44,609	42,356	41,548	41,655	38,333	28,262	30,761

	Percentage variation						
	1929	1928	1927	1926	1925	1924	1923
Canada	119·6	113·2	106·6	100·0	93·3	86·4	89·6
Prince Edward Island	93·1	89·7	98·9	100·0	103·3	101·2	123·0
Nova Scotia	126·2	114·7	106·8	100·0	98·8	96·0	102·7
New Brunswick	104·1	101·1	107·8	100·0	97·0	88·3	90·5
Quebec	117·7	113·1	108·7	100·0	92·9	89·0	90·0
Ontario	122·3	115·1	106·0	100·0	93·2	89·0	92·9
Manitoba	123·1	118·4	108·5	100·0	93·8	64·1	65·6
Saskatchewan	164·9	128·6	116·7	100·0	87·9	81·8	82·0
Alberta	141·1	130·3	112·6	100·0	91·1	77·0	84·8
British Columbia and Yukon	107·1	101·7	99·7	100·0	92·0	67·8	73·8

4-84